ORDER NO. APD8503792

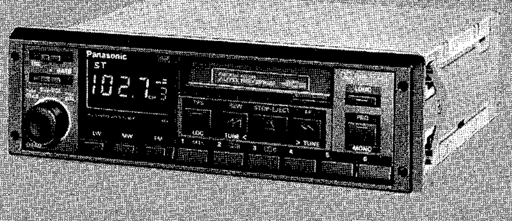
Service Manual

AUTO PRODUCTS

CQ-983EE/EG, CQ-984EG

CASSETTE CAR STEREO TAPE PLAYER with
LW/MW/UKW (FM) MPX
ELECTRONIC TUNER RADIO

STEREO-CASSETTENSPIELER mit
LW/MW/UKW-STEREO
ELECTRONISCHER ABSTIMMUNG RADIO



CQ-983EE/EG

CQ-984EG

DOLBY SYSTEM® *"Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.
*Noise Reduction System manufactured under license from Dolby Laboratories Licensing Corporation.

The difference between CQ-983EE/EG and CQ-984EG is traffic information.
CQ-984EG is added traffics information.

FEATURES

- Large dual function keys with green/amber (cassette/radio) illumination.
- Dolby C and Dolby B noise reduction.
- Full logic control cassette mechanism with self-test function for superior reliability.
- 9-song TPS automatically skips to desired song in forward or reverse directions.
- 3-color LCD display shows radio frequency and cassette functions.
- Audio input terminal for connection of external music sources such as CD player, etc.
- Pre-amp output for additional power amp connection and fader for front-rear volume balance control.
- Multi-tuner card saves space and raises reliability; allows more valuable features to be included.
- The function to received the trafic-information broadcast is employed. (CQ-984EG)

MERKMALE

- Große Doppelfunktionstasten mit grün/bernsteinfarbener Beleuchtung (für Cassette/Radiobetrieb).
- Dolby C und Dolby B Rauschunterdrückung.
- Vollogischer Cassettenmechanismus mit Selbsttestfunktion für gesteigerte zuverlässigkeit.
- TPS für 9 Titel springt automatisch in vorwärts-oder Rückwärcsrichtung zum gewünschten Titel.
- 3 Farbiges LCD-Display zeigt Radiofrequenz und Cassettenfunktionen.
- Audio-Eingang zum Anschluß von externen Musikquellen wie CD-Spieler usw.
- Vorverstärker-Ausgang für zusätzlichen Anschluß eines Leistungsverstärkers und Ausblender für Balancesteuerung vorne/hinten.
- Multi-Tuner Steckkarte spart Platz und steigert die Zuverlässigkeit; erlaubt Einbau von zusätzlichen wertvollen Merkmalen.
- Die Funktion zum Empfang von Verkehrsfunk-Informationen wird eingesetzt. (CQ-984EG)

Panasonic

Matsushita Electric Trading Co., Ltd.
P. O. Box 288, Central Osaka, Japan

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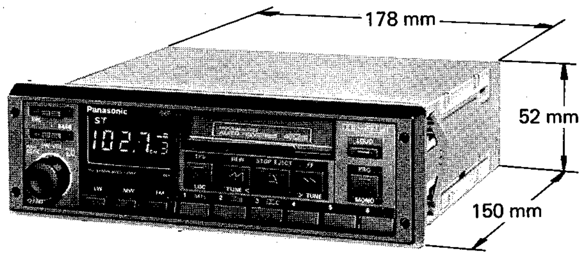
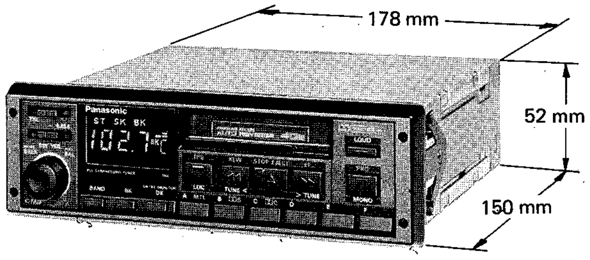
DIMENSIONS/ABMESSUNGEN

- CQ-983EE/EG

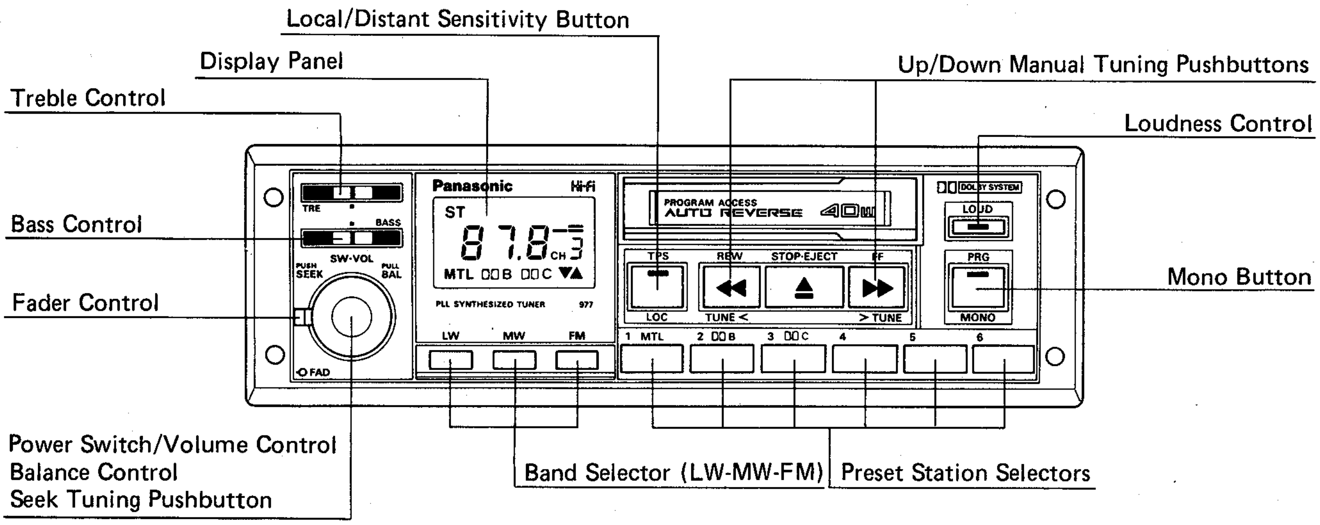

178 mm
52 mm
150 mm

- CQ-984EG

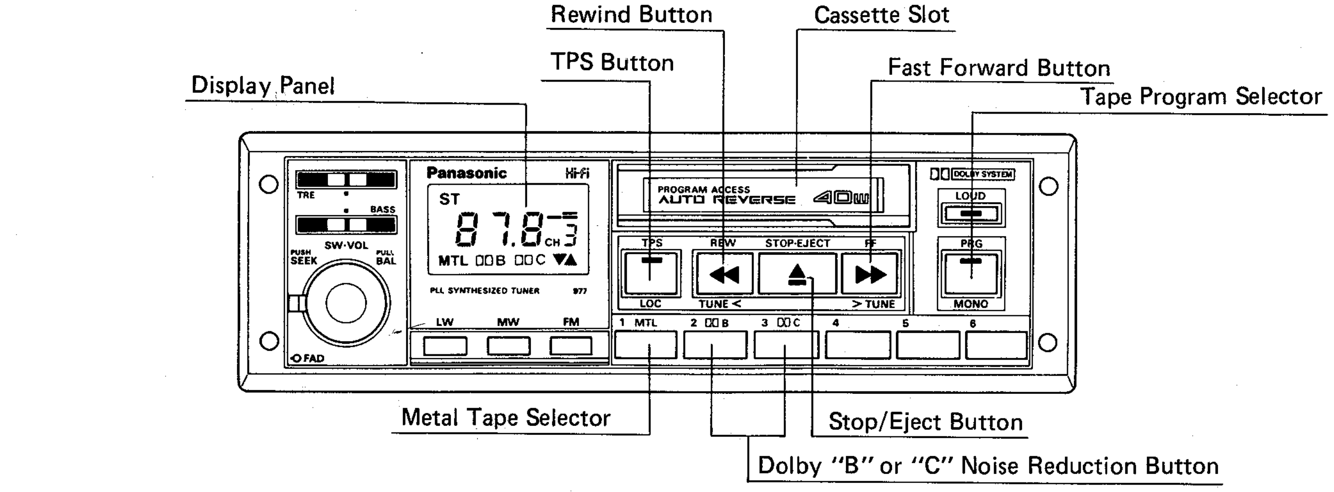

178 mm
52 mm
150 mm

LOCATIONS
(CQ-983EE/EG)

• Main and Radio Controls


Local/Distant Sensitivity Button
Display Panel
Treble Control
Up/Down Manual Tuning Pushbuttons
Loudness Control
Bass Control
Mono Button
Fader Control
Power Switch/Volume Control
Balance Control
Seek Tuning Pushbutton
Band Selector (LW-MW-FM)
Preset Station Selectors
Panasonic
Hi-fi
ST
87.8
CH 3
MTL ꓷꓷB ꓷꓷC
PLL SYNTHESIZED TUNER
TRE
BASS
SW·VOL
PUSH SEEK
PULL BAL
FAD
LW
MW
FM
PROGRAM ACCESS
AUTO REVERSE
40W
TPS
REW
STOP·EJECT
FF
LOC
TUNE <
> TUNE
1 MTL
2 ꓷꓷB
3 ꓷꓷC
4
5
6
DOLBY SYSTEM
LOUD
PRG
MONO

• Cassette Controls


Rewind Button
Cassette Slot
TPS Button
Fast Forward Button
Display Panel
Tape Program Selector
Metal Tape Selector
Stop/Eject Button
Dolby "B" or "C" Noise Reduction Button

SPECIFICATIONS*
(Both CQ-983EE/EG, 984EG)

Power Supply:	DC 12 V (11 ~ 16 V) Test Voltage 14.4 V Negative Ground
Tone Controls:	Bass; ±10 dB at 100 Hz Treble; ±10 dB at 10 kHz
Loudness Control:	+10 dB at 100 Hz +6 dB at 10 kHz
Current Consumption:	Less than 2 A (at 0.5 W)
Maximum Power Output:	2 x 20 W (at 4 Ω)
Power Output:	2 x 13 W (DIN45 324, at 4 Ω)
Speaker Impedance:	4 ~ 8 Ω
Battery Back Up Current Consumption:	Less than 2 mA

Car Stereo

Reproduction System:	4-Track, 2-Program Stereo
Tape Speed:	4.76 cm/sec.
FF/Rewind Time:	Less than 90 sec. (C-60)
Frequency Response:	31.5 Hz to 14,000 Hz
Wow/Flutter:	0.12% (WRMS)
Signal/Noise Ratio:	52 dB
Output Voltage:	700 mV (Ref. level; 0 dB)

FM Stereo Radio

Frequency Range:	87.5 ~ 108 MHz
Intermediate Frequency:	10.7 MHz
Maximum Sensitivity:	Less than 4 dB/μV, (S/N 10 dB)
FM Stereo Sensitivity:	Less than 18 dB/μV
Output Voltage:	600 mV (22.5 kHz Dev.)

MW Radio

Frequency Range:	531 ~ 1,602 kHz
Intermediate Frequency:	450 kHz
Maximum Sensitivity:	Less than 26 dB/μV (at 0.5 W)
Output Voltage:	500 mV (30% Mod.)

LW Radio

Frequency Range:	153 ~ 281 kHz
Intermediate Frequency:	450 kHz
Maximum Sensitivity:	Less than 35 dB/μV (at 0.5 W)
Output Voltage:	500 mV (30% Mod.)

Dimensions:**	178 (W) x 150 (D) x 52 (H) mm
Weight:**	1.8 kg

* Specifications subject to change without notice.
** Weight and Dimensions shown are approximate.
*** C-120 tape is not recommended to use.

TECHNISCHE DATEN*
(Beide CQ-983EE/EG, 984EG)

Stromversorgung:	GS 12 V (11 ~ 16 V) Testspannung 14,4 V Batterieklemme negativ an Masse
Klangregler:	Bässe; ±10 dB bei 100 Hz Höhen; ±10 dB bei 10 kHz
Gehörrichtige Frequenzgangkorrektur:	+10 dB bei 100 Hz +6 dB bei 10 kHz
Stromverbrauch:	Weniger als 2 A (bei 0,5 W)
Max. Ausgangsleistung:	2 x 20 W (bei 4 Ω)
Sinus-Ausgangsleistung:	2 x 13 W (DIN45 324, bei 4 Ω)
Lautsprecherimpedanz:	4 ~ 8 Ω
Stromverbrauch Progr. Speicher:	Weniger 2 mA

Stereo-Cassettenspieler

Wiedergabesystem:	Viertelspur-Zweikanal-Stereo
Bandgeschwindigkeit:	4,76 cm/sek.
Vor/Rücklaufdauer:	Weniger als 90 sek. (C-60)
Frequenzgang:	31,5 Hz ~ 14,000 Hz
Gleichlaufschwankungen:	0,12% (WRMS) (Mittelwert, bewertet)
Signal-Rauschabstand:	52 dB
Ausgangsspannung:	700 mV (0 dB)

UKW-Stereo-Empfangsteil

Empfangsbereich:	87,5 ~ 108 MHz
Zwischenfrequenz:	10,7 MHz
Max. Empfindlichkeit:	Weniger als 4 dB/μV (Signal-Rauschabstand 10 dB)
UKW-Stereo Empfindlichkeit:	Weniger als 18 dB/μV
SK/BK Empfindlichkeit:	Weniger als 20 dB/μV
Ausgangsspannung:	600 mV (22,5 kHz Dev.)

MW-Empfangsteil

Empfangsbereich:	531 ~ 1,602 kHz
Zwischenfrequenz:	450 kHz
Max. Empfindlichkeit:	Weniger als 26 dB/μV (bei 0,5 W)
Ausgangsspannung:	500 mV (30% Mod.)

LW-Empfangsteil

Empfangsbereich:	153 ~ 281 kHz
Zwischenfrequenz:	450 kHz
Max. Empfindlichkeit:	Weniger als 35 dB/μV (bei 0,5 W)
Ausgangsspannung:	500 mV (30% Mod.)

Abmessungen:**	178 (B) x 150 (T) x 52 (H) mm
Gewicht:**	1,8 kg

* Anderungen vorbehalten.
** Gewicht und Abmessungen in angenäherten Werten angegeben.
*** C-120-Cassetten sind zu emfehlen.

OPERATION OF CONTROLS

(CQ-983EE/EG)

1. Before Use

Before use, make sure to push eject button.

- In some cases, cassette holder will be locked by the shock during transportation.
  After wiring connections and installation are done, push eject button and deck will be ready for use.
- Do not insert cassette until all wiring connections are done.
  This model is equipped with an electronic eject system. Cassette will not eject when power is not on.

2. Main Controls

1. Power Switch/Volume Control/Balance Control (SW-VOL/PULL BAL)

Power switch: Turn the knob clockwise to switch the power to the unit on. The display panel shows the radio frequency. To switch the power to the unit off, turn the knob fully counterclockwise until a click is heard.

Volume control: Adjust volume to the desired level with this knob. Turn the knob clockwise to increase volume; and counterclockwise to decrease volume. For your driving safety, keep the volume level low enough to be aware of road and traffic conditions.

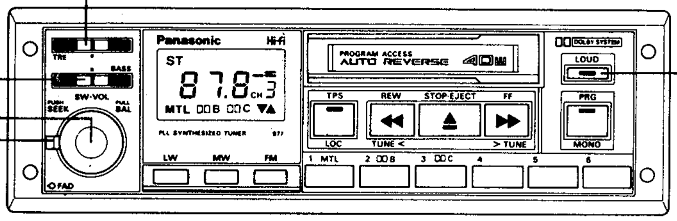
Balance control: To adjust stereo balance, pull the knob and turn it clockwise or counterclockwise until sound from the left and right speakers is about equal from your listening position.

2. Bass Control (BASS)

Slide the lever to the left and right for the desired bass tone.

3. Treble Control (TRE)

Slide the lever to the left and right for the desired treble tone.



4. Loudness Control (LOUD)

Light comes on when the loudness is switched on.

This control is devised to compensate human hearing deficiency in high and low frequency regions when volume is low. Switch on the loudness when listening at low volume; and when listening at high volume, switch off the loudness (light goes out).

5. Fader Control (FAD)

Turn the control clockwise (from the center position) to hear sound from the speakers connected to this unit. Turn the control counterclockwise to hear sound from the additional speakers connected through a separate power amplifier (via the "PRE-AMP OUTPUT CONNECTOR"). Refer to "Electrical Connection".

If four speakers are connected, adjust the fader control for sound balance between speakers (front/rear).

ILLUMINATION:

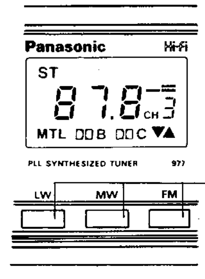
The control indications (green or orange) will illuminate depending upon the mode of operation. Green illuminations are for cassette deck operation, and orange illuminations are for radio operation.

3. Listening to the Radio

- Radio operation controls are indicated by orange illuminations.

a. Band Selection

Frequency Ranges:
LW : 153 kHz ~ 281 kHz
MW : 531 kHz ~ 1602 kHz
FM : 87.5 MHz ~ 108 MHz



Band Selector (LW-MW-FM)(BAND)
Select the desired band (LW-MW-FM).
The radio frequency appears on the display panel.

FUSE REPLACEMENT/SICHERUNG ERSATZ

(CQ-983EE/EG, CQ-984EG)

FUSE REPLACEMENT

Be sure to use a fuse of specified rating (5A, 1A), when replacing a blown fuse.

Fuses rated at higher capacity, use of any substitute, or connection without a fuse may result in a fire hazard or damage to the unit.

If the replacement fuse fails, contact your nearest authorized panasonic service center.

CAUTION:

1. Connect the BATTERY LEAD (yellow) direct to the battery. Otherwise, time and memory settings can not be done.
2. If battery connection is disconnected (such as during battery replacement, recharging the battery, etc.), all electronic settings proviously done on this unit would fade out. To reset, follow previous instructions on the Operating Instructions.

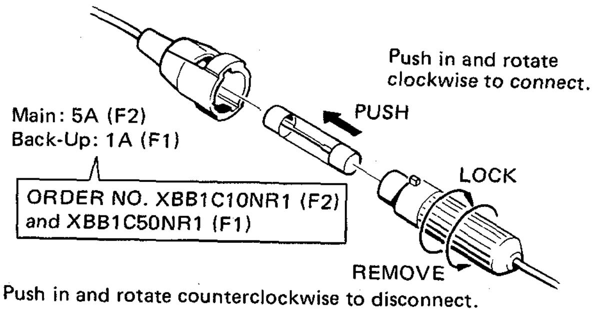
ERSATZ

Muß die Sicherung erneuert werden, nut Sicherungen mit der gleichen Nenstromstärke (5A, 1A) verwenden. Verwendung von Sicherungen mit höherem Nennwert, oder Ersatzmittel, bzw. Anschluß ohne Sicherung führt zu Feuergefahr oder Beschädigung des Gerätes.

Sollte eine neu eingesetzte Sicherung durchbrennen, wenden Sie sich bitte an Ihren Fachhändler.

ANMERKUNG:

1. Das gelbe BATTERIEKABEL direkt an die Batterie anschließen, de sonst Uhrzeit und Specicher nicht eingestellt werden können.
2. Wenn der Batterieanschluß abgetrennt wird (z.B. beim Auswechseln der Batterie. Aufladen der Batterie usw.) werden alle elektronischen Einstellungen gelöscht. In einem solchen Fall gemäß Anleitungen in diesser Bedienungsanleitung die Einstellungen nochmals durchführen.


Push in and rotate clockwise to connect.
PUSH
Main: 5A (F2)
Back-Up: 1A (F1)
ORDER NO. XBB1C10NR1 (F2) and XBB1C50NR1 (F1)
LOCK
REMOVE
Push in and rotate counterclockwise to disconnect.

MAINTENANCE/WARTUNG

TAPE HEAD CLEANING

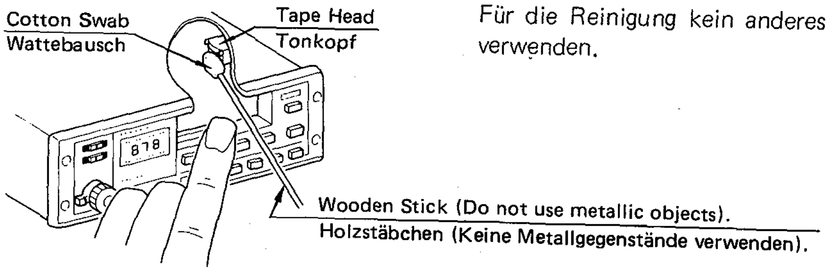
To obtain optimum performance, clean the tape head as often as necessary, depending upon frequency of use and tape cleanliness.

The tape head in the cassette car stereo mechanism can accumulate dust and tape residue, causing poor or wavering sound.

To clean the tape head, open the cassette slot and use a cotton swab, dampened in isopropyl alcohol (or use a commercially available head cleaning tape).

CAUTION:

Do not use any solution other than alcohol for head cleaning.


Cotton Swab
Wattebausch
Tape Head
Tonkopf
Wooden Stick (Do not use metallic objects).
Holzstäbchen (Keine Metallgegenstände verwenden).

REINIGEN DES TONKOPFES

Um optimales Leistungsvermögen zu gewährleisten, sollte der Tonkopf regelmäßig, abhängig von der Betriebsdauer und Sauberkeit des Bandes, gereinigt werden.

Der Tonkopf des Autostereocassettenlaufwerkes kann Staub und Bandabrieb sammeln, was sich in schlechter oder schwankender Tonqualität bemerkbar macht.

Um den Tonkopf zu reinigen, den Cassettenschacht öffnen und die Reinigung mit einem in Isopropylalkohol getauchten Wattebausch vornehmen (oder eine im Fachhandel erhältliche Tonkopf-Reinigungscassette verwenden).

VORSICHT:

Für die Reinigung kein anderes Lösungsmittel als Alkohol verwenden.

OUTSIDE CLEANING

To clean the outside of the set (escutcheon and chassis), use a soft cloth to wipe the surface.

Do not use benzine, thinner, or any other type of solvent.

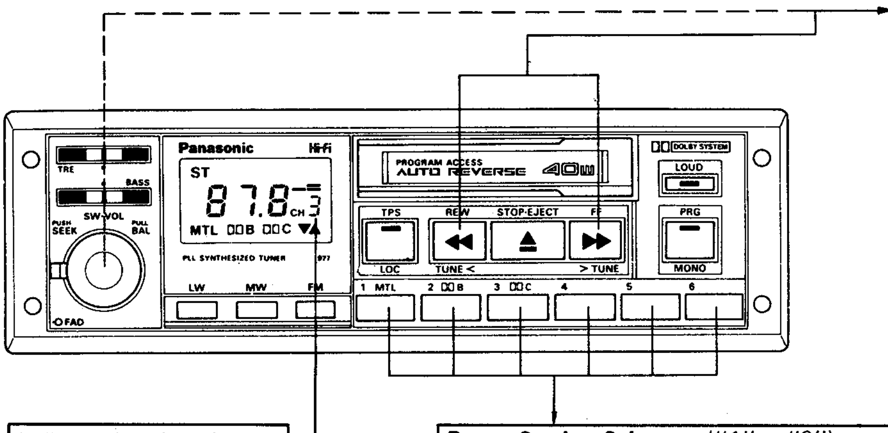
REINIGEN DER OBERFLÄCHE

Um die Oberfläche des Gerätes zu reinigen (Blende und Chassis), ein weiches Tuch verwenden.

Niemals Benzin, Verdünnungsmittel oder andere Lösungsmittel benutzen.

d. Preset Station Selectors

Six stations each for the LW, MW and FM bands can be preset in the electronic memory circuit on these six buttons ("1" – "6"), respectively. Each button is indicated on the display panel as follows: "1" button as " CH1 ", "2" button as " CH2 ", "3" button as " CH3 ", "4" button as " CH4 ", "5" button as " CH5 " and "6" button as " CH6 ".


Panasonic
Hi-Fi
ST
87.8 CH3
MTL DOB DDC ▼▲
PLL SYNTHESIZED TUNER
TRE
BASS
SW-VOL
PUSH SEEK
PULL BAL
FAD
LW
MW
FM
PROGRAM ACCESS
AUTO REVERSE 40W
TPS
REW
STOP·EJECT
FF
LOC
TUNE <
> TUNE
LOUD
PRG
MONO
1 MTL
2 DOB
3 DDC
4
5
6

Manual/Seek Tuning Pushbuttons
Find the station you want by seek tuning or manual tuning.

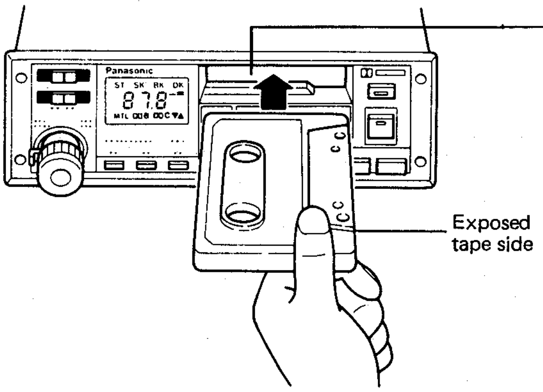
Indicates the selected preset station on the "3" button.

Preset Station Selectors ("1" – "6")
Hold one of the preset station selectors in for several seconds. (While holding the preset station selector, the radio cannnot be heard, "muting" circuit operates. This will activate the memory circuit to preset the desired station.) Release the preset station selector after you hear the radio again. The frequency display will also blink once when memory is activated. The preset station is indicated on the display panel.
NOTES:
1. Memory will not activate when the preset station selector is "hurriedly" released.
2. If any of these preset station selectors is accidentally pushed and held for several seconds (about more than 2 sec.), the previously "preset" station will be erased; and instead a different station will be entered into that memory circuit.

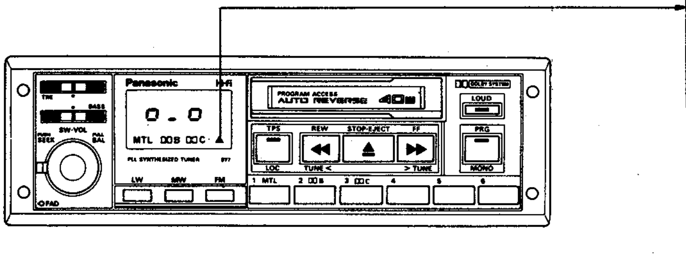
You can choose any one of the preset station selectors to preset the station. Thus, the six selectors can be used to set a total of a total of 18 stations (six for LW, six for MW and six for FM).

4. Listening to the Cassette Tape

- Cassette operation controls are indicated by green illuminations.


Panasonic
87.8
Exposed tape side

Cassette Slot
Insert cassette with exposed tape side facing to the right. Push inward until the mechanism captures the cassette. Playback starts automatically when the cassette tape is inserted. Radio will not work while a tape is playing.

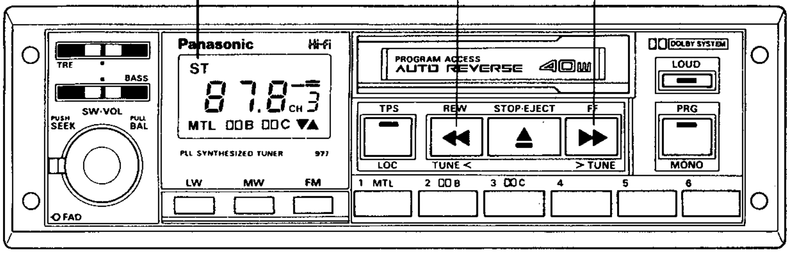

Panasonic
Hi-Fi
0 - 0
MTL DOB DDC ▲
PROGRAM ACCESS
AUTO REVERSE 40W
TPS
REW
STOP·EJECT
FF
LOC
TUNE <
> TUNE
LOUD
PRG
MONO
LW
MW
FM
1 MTL
2 DOB
3 DDC
4
5
6

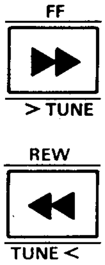
Tape Direction Indicator
The tape direction indicator (0_0▲ or 0‾0▼) appears on the display panel during tape playback.
0_0▲ : Indicates the top side of the cassette is being played.
0‾0▼ : Indicates the bottom side of the cassette is being played.

b. Manual Tuning

FM Stereo "ST" Indicator Illuminates when the FM radio is being broadcast in "FM stereo".

Up/Down Manual Tuning Pushbuttons (TUNE)
Tune in to the desired radio station frequency.
NOTE:
When you hold the button for more than half a second, the tuning frequency will count up or down rapidly. The tuning will stop instantly as soon as you let go.


Panasonic
Hi-Fi
ST
8 7.8 CH 3
MTL DOB DOC
PLL SYNTHESIZED TUNER
LW
MW
FM
TRE
BASS
SW·VOL
PUSH SEEK
PULL BAL
FAD
PROGRAM ACCESS
AUTO REVERSE 40W
DOLBY SYSTEM
LOUD
TPS
REW
STOP·EJECT
FF
PRG
LOC
TUNE <
> TUNE
MONO
1 MTL
2 DOB
3 DOC
4
5
6

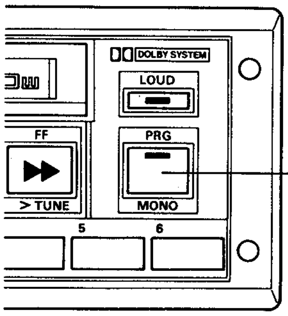

FF
> TUNE
REW
TUNE <

– Push to count up.

– Push to count down.

NOTE:
Each time you push the manual "TUNE <" down or "> TUNE" up pushbutton, the frequency display will count up or down according to the radio band, as described below:

LW : 1 kHz each push (For ex., 153 → 154 → 155 → 156 → 157 → 158 → → → → 281)
MW : 9 kHz each push (For ex., 531 → 540 → 549 → 558 → 567 → 576 → → → → 1602)
FM : 25 kHz each push (For ex., 87.5 → 87.5^{-} → 87.5$^{=}$ → 87.5$^{-=}$ → 87.6 → 87.6^{-} → 87.6$^{=}$ → 87.6$^{-=}$ → → → → 108.0)
(The "–", "=" and "–=" indicate 25, 50 and 75 kHz frequency, respectively.)

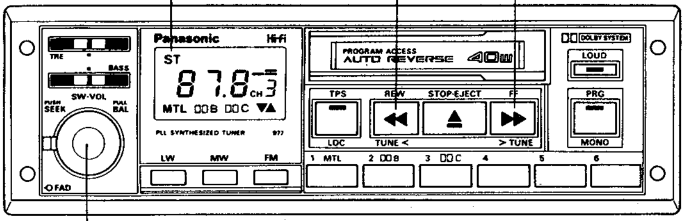

DOLBY SYSTEM
LOUD
FF
> TUNE
PRG
MONO
5
6

Mono Button (MONO)
Light comes on when the button is switched to "mono" mode. Switch the button on in weak FM signal areas to obtain clear FM reception (monaural). Push the button again (off position) for normal FM stereo reception, and the light goes out.

c. Seek Tuning

FM Stereo "ST" Indicator

Local/Distant Sensitivity Button (LOC)
Light comes on when the button is switched to "local" mode.
While seek tuning, if you feel there are too many stations (even weak ones) being received, switch the button on to receive nearby local stations only. Push the button again (off position) for distant radio stations, and the light goes out.


Panasonic
Hi-Fi
ST
8 7.8 CH 3
MTL DOB DOC
PLL SYNTHESIZED TUNER
LW
MW
FM
TRE
BASS
SW·VOL
PUSH SEEK
PULL BAL
FAD
PROGRAM ACCESS
AUTO REVERSE 40W
DOLBY SYSTEM
LOUD
TPS
REW
STOP·EJECT
FF
PRG
LOC
TUNE <
> TUNE
MONO
1 MTL
2 DOB
3 DOC
4
5
6

Seek Tuning Pushbutton (PUSH SEEK)
Each time you push the button, seek tuning is automatically done and will stop on the broadcasting radio station. If the button is pushed again, the next radio station will come out automatically. The seek tuning will count up in sequence only.

Box 1: TPS Button (Tape Program Sensor)

Push this button according to the numbers of the program (music) you want to select. The TPS will find the starting point of up to nine music programs in a prerecorded music tape. The quiet space between programs (must have at least a 4 sec. gap) can be sensed by the tape program sensor (TPS) circuit. If TPS is not required, push the TPS button again and the light goes off.

NOTE:

Most commercially available music cassette tapes are suitable for TPS system.

NOTES:

1. If the TPS button is switched off at the middle of the TPS operation, the fast forward or rewind operation will instead operate. See explanation on "Rewind/ Fast Forward Buttons".
2. TPS system will only operate after a lapse of about 1.5 seconds from the start of playback.

Tapes not suitable for TPS operation:

The TPS circuitry may not function properly for tapes described below, causing tapes to stop midway through a program or to overrun the space between programs.

1. Tapes which contain intermittent sound program, such as conversations, lectures, news, pianissimo-featured classical music, or music that includes many silent or mute passages.
2. Tapes which have a very short time interval between recorded programs.
3. Tapes which have a high level of noise or hum between programs.

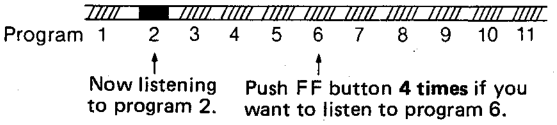
How to operate the TPS:

- Push the TPS button and the light comes on.

1. Forward TPS:

Pushing the FF button once will play the beginning of the next music. Pushing twice will go forward to the beginning of the second music and so forth. Up to 9 programs can be selected.

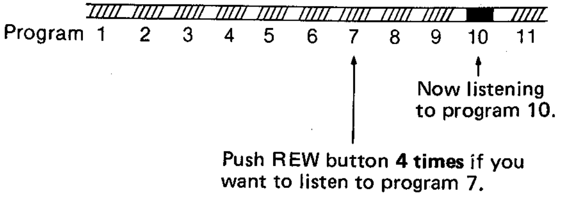
- **Forward TPS Operation:**

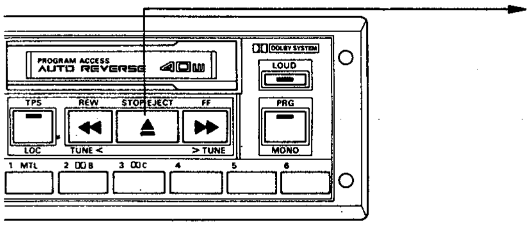

Program 1 2 3 4 5 6 7 8 9 10 11
Now listening to program 2.
Push FF button **4 times** if you want to listen to program 6.

2. Rewind TPS:

Pushing the REW button once will replay the beginning of the music just listened to. Pushing twice will go back to the beginning of the previous music and so forth. Up to 9 programs can be selected.

- **Rewind TPS Operation:**


Program 1 2 3 4 5 6 7 8 9 10 11
Now listening to program 10.
Push REW button **4 times** if you want to listen to program 7.

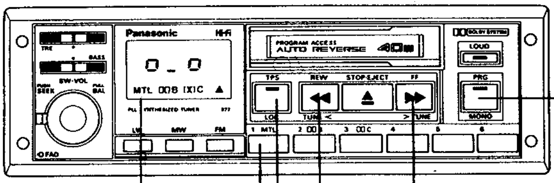

PROGRAM ACCESS
AUTO REVERSE
DOLBY SYSTEM
LOUD
TPS
REW
STOP/EJECT
FF
PRG
LOC
TUNE <
> TUNE
MONO
1 MTL
2 DDB
3 DDC
4
5
6

Stop/Eject Button (STOP/EJECT)

To stop playing, push this button. The cassette will pop out for removal, and the radio will be heard again.

NOTES:

1. If power is switched off before the STOP/EJECT button is pushed, the cassette will not eject. Switch on the power again and push the STOP/EJECT button to eject the cassette.
2. The cassette should always be removed from the cassette slot when not in use.


Panasonic
Hi-Fi
PROGRAM ACCESS
AUTO REVERSE
LOUD
TRE
BASS
SW-VOL
SEEK
BAL
FAD
MTL DDB DDC
PLL SYNTHESIZED TUNER
TPS
REW
STOP-EJECT
FF
PRG
MONO
LOC
TUNE
LW
MW
FM
1 MTL
2 DDB
3 DDC
4
5
6

Tape Program Selector (PRG)
Push this button if you want ot change the direction of tape play as indicated by the tape direction indicator. If the button is not pushed, tape direction will change automatically at the end of the tape (Auto Reverse System).

Rewind/Fast Forward Buttons (REW/FF)
Make sure the TPS button is not switched on. Otherwise, the TPS circuit will operate.

- Push the FF button for fast forward. When the tape reaches its end, Auto Reverse will operate and the opposite side of the tape plays back.
- Push the REW button for rewind. When the tape is fully rewound, tape plays back again the same side of the tape.
- To stop REW or FF operation, push the STOP/EJECT button. Then the tape play will resume from that position.

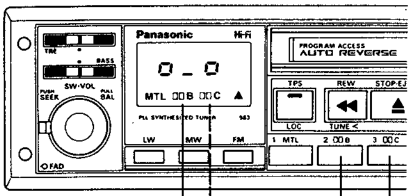
NOTES:

1. The REW or FF button should be pushed after the tape has started playback.
2. If the TPS button is switched on during REW or FF operation, the tape will stop and start playing the beginning of the nearest music program. See explanation on "TPS Button".
3. The tape direction indicator (O_O or O‾O) will blink during REW or FF operation.

Metal Tape Selector (MTL)
Push and the metal indicator comes on, for playing metal or CrO_2 tape.
Push again (metal indicator goes off) for playback of normal tape.
NOTE:
Wrong setting will cause high frequency imbalance.

Metal Indicator (MTL)
Light comes on when the metal tape selector is switched on.

TPS Button (TPS)
The tape program sensor (TPS) button, if switched on, will search up to nine programs in a prerecorded music tape.
Light comes on when the TPS button is switched on.
For further details on the TPS button, refer to **Box 1** (next page).


Panasonic
Hi-Fi
PROGRAM ACCESS
AUTO REVERSE
TRE
BASS
SW-VOL
SEEK
BAL
FAD
MTL DDB DDC
PLL SYNTHESIZED TUNER
TPS
REW
STOP-EJ
LOC
TUNE
LW
MW
FM
1 MTL
2 DDB
3 DDC

Dolby "B" or "C" Noise Reduction Button (DDB /DDC)
Push any of these buttons according to what Dolby system "B" or "C" your tape has been recorded. The Dolby NR indicator " DDB" or " DDC" will light up.
Dolby "B" : Reduces noise by about 10 dB.
Dolby "C" : Reduces noise by about 20 dB.
Push button again (Dolby NR indicator goes off) for playback of tape not recorded by the Dolby Noise Reduction System "B" or "C". Cassette tapes not recorded with Dolby NR do not benefit from use of Dolby NR during playback.
Using the Dolby NR System on non-Dolby-encoded tape causes high frequency imbalance.
NOTE:
The Dolby NR circuit will not operate during radio reception.

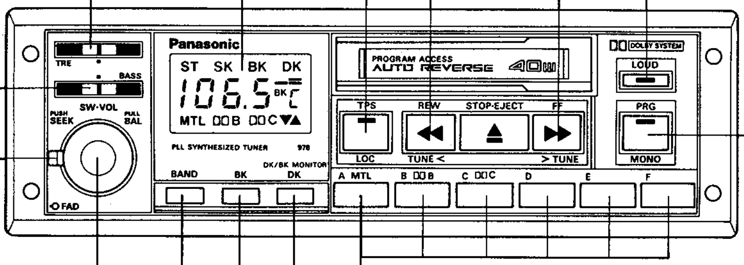
Dolby "B" or "C" NR Indicator (DDB/DDC)
Light comes on when the Dolby "B" or "C" NR button is switched on.

- Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
- "Dolby" and the double-D symbol are trade marks of Dolby Laboratories Licensing Corporation.

LOCATIONS/STELLE

(CQ-984EG)

• Main and Radio control / Haupt—und Radiokontrolltastatur


TRE
BASS
SW-VOL
PUSH SEEK
PULL BAL
FAD
Panasonic
ST SK BK DK
106.5
MTL DOB DOC
PLL SYNTHESIZED TUNER
DK/BK MONITOR
BAND BK DK
PROGRAM ACCESS
AUTO REVERSE
40W
TPS REW STOP·EJECT FF
LOC TUNE < > TUNE
DOLBY SYSTEM
LOUD
PRG
MONO
A MTL B DOB C DOC D E F

Display Panel
Anzeige

Local/Distant Sensitivity Button
Wahlschalter für Nah-/Fernempfang

Treble Control
Höhenregler

Bass Control
Tieftonregler

Fader Control
Überblendregler

Power Switch/Volume Control/
Balance Control/
Seek Tuning Pushbutton
Ein/Aus-Schalter/Lautstärkeregler/
Balanceregler/
Sendersuchlauftaste

Up/Down Manual Tuning Pushbuttons
Manuelle Höhen-/Tiefenabstimmregler

Loudness Control
Gehörrichtige Frequenzgangkorrektur

Mono Button
Mono-Wahlschalter

Preset Station Selectors and Designated "VF" Area Buttons
Festsendertasten und "VF"-Bereichstasten
Sélecteurs de Prereglage de stations et Boutons de zone "VF" désignee

DK Button
DK-Taste

BK Button
BK-Taste

Band Selector (LW-MW-FM)
Empfangsbereichwähler (LW-MW-UKW)

• Cassette Controls / Kontrolltastatur des Cassettengeräts

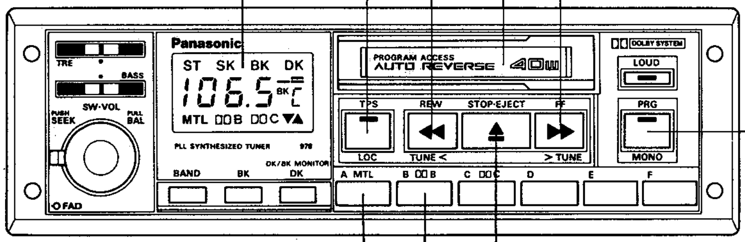
Rewind Button
Rücklauftaste

TPS Button
TPS-Taste

Display Panel
Anzeige

Cassette Slot
Cassettenschacht

Fast Forward Button
Schnellvorlauftaste


TRE
BASS
SW-VOL
PUSH SEEK
PULL BAL
FAD
Panasonic
ST SK BK DK
106.5
MTL DOB DOC
PLL SYNTHESIZED TUNER
DK/BK MONITOR
BAND BK DK
PROGRAM ACCESS
AUTO REVERSE
40W
TPS REW STOP·EJECT FF
LOC TUNE < > TUNE
DOLBY SYSTEM
LOUD
PRG
MONO
A MTL B DOB C DOC D E F

Tape Program Selector
Bandprogrammwähler

Metal Tape Selector
Reineisenband-Wahltaste

Stop/Eject Button
Stopp/Auswurftaste

Dolby "B" Noise Reduction Button
Dolby "B" Rauschverminderungstaste

OPERATION OF CONTROLS

(CQ-984EG)

1. Before Use

Before use, make sure to push eject button.

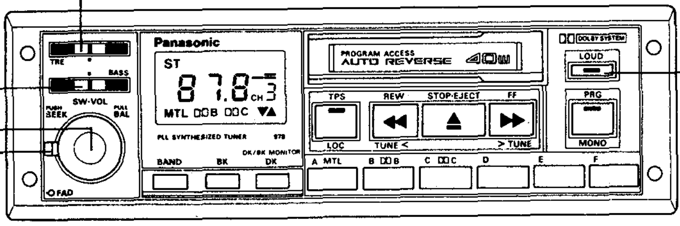
- In some cases, cassette holder will be locked by the shock during transportation.
  After wiring connections and installation are done, push eject button and deck will be ready for use.
- Do not insert cassette until all wiring connections are done.
  This model is equipped with an electronic eject system. Cassette will not eject when power is not on.

2. Main Control

1. Power Switch/Volume Control/Balance Control (SW-VOL/PULL BAL)
Power switch: Turn the knob clockwise to switch the power to the unit on. The display panel shows the radio frequency. To switch the power to the unit off, turn the knob fully counterclockwise until a click is heard.
Volume control: Adjust volume to the desired level with this knob. Turn the knob clockwise to increase volume; and counterclockwise to decrease volume. For your driving safety, keep the volume level low enough to be aware of road and traffic conditions.
Balance control: To adjust stereo balance, pull the knob and turn it clockwise or counterclockwise until sound from the left and right speakers is about equal from your listening position.

2. Bass Control (BASS)
Slide the lever to the left and right for the desired bass tone.

3. Treble Control (TRE)
Slide the lever to the left and right for the desired treble tone.


TRE
BASS
SW·VOL
PUSH SEEK
PULL BAL
FAD
Panasonic
ST
87.8 CH 3
MTL DDB DDC
PLL SYNTHESIZED TUNER
DK/BK MONITOR
BAND
BK
DK
PROGRAM ACCESS
AUTO REVERSE
40W
DOLBY SYSTEM
LOUD
TPS
REW
STOP·EJECT
FF
LOC
TUNE <
> TUNE
PRG
MONO
A MTL
B DDB
C DDC
D
E
F

4. Loudness Control (LOUD)
Light comes on when the loudness is switched on.
This control is devised to compensate human hearing deficiency in high and low frequency regions when volume is low. Switch on the loudness when listening at low volume; and when listening at high volume, switch off the loudness (light goes out).

5. Fader Control (FAD)
Turn the control fully clockwise if two speakers are installed with this unit. If the fader control is turned fully counterclockwise no sound can be heard.
If additional two speakers are installed through a separate power amplifier (via the "PRE-AMP OUTPUT CONNECTOR"), adjust the fader control for sound balance between speakers.

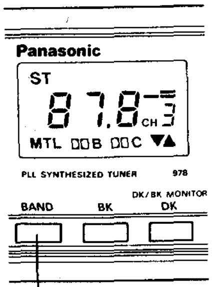
ILLUMINATION:
The control indications (green or orange) will illuminate depending upon the mode of operation. Green illuminations are for cassette deck operation, and orange illuminations are for radio operation.

3. Listening to the Radio

- Radio operation controls are indicated by orange illuminations.

a. Band Selection

Band Selector (LW-MW-FM)(BAND)
Each time you push the button, the band will be selected.
The radio frequency appears on the display panel.
NOTE:
For "VF" Reception (see Section III), push the BK button. However, if the band selector is pushed, the previously tuned radio band (LW, MW or FM) will be received again.

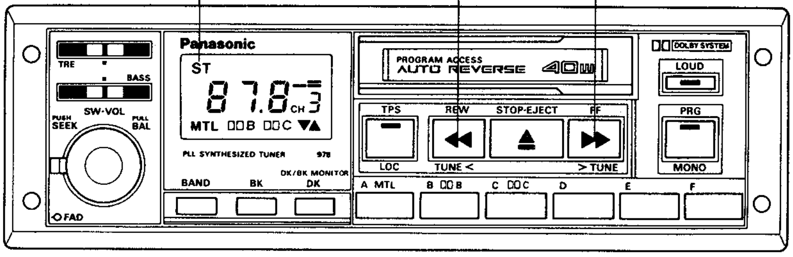

Panasonic
ST
87.8 CH 3
MTL DDB DDC
PLL SYNTHESIZED TUNER
DK/BK MONITOR
BAND
BK
DK

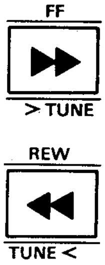
Frequency Ranges:
LW : 153 kHz ~ 281 kHz
MW : 531 kHz ~ 1602 kHz
FM : 87.5 MHz ~ 108 MHz

b. Manual Tuning

FM Stereo "ST" Indicator
Illuminates when the FM radio is being broadcast in "FM stereo".

Up/Down Manual Tuning Pushbuttons (TUNE)
Tune in to the desired radio station frequency.
NOTE:
When you hold the button for more than half a second, the tuning frequency will count up or down rapidly. The tuning will stop instantly as soon as you let go.


Panasonic
ST
87.8 CH 3
MTL DDB DDC
PLL SYNTHESIZED TUNER
BAND BK DK
DK/BK MONITOR
TRE BASS
SW·VOL
PUSH SEEK
PULL BAL
FAD
PROGRAM ACCESS
AUTO REVERSE 40W
TPS REW STOP·EJECT FF
LOC TUNE< >TUNE
A MTL B DDB C DDC D E F
DOLBY SYSTEM
LOUD
PRG
MONO

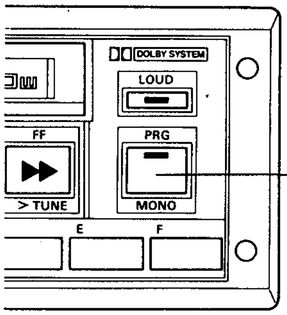

FF
>TUNE
REW
TUNE<

– Push to count up.

– Push to count down.

NOTE:
Each time you push the manual "TUNE<" down or ">TUNE" up pushbutton, the frequency display will count up or down according to the radio band, as described below:

LW : 1 kHz each push (For ex., 153 → 154 → 155 → 156 → 157 → 158 → → → → 281)
MW : 9 kHz each push (For ex., 531 → 540 → 549 → 558 → 567 → 576 → → → → 1602)
FM : 25 kHz each push (For ex., 87.5 → 87.5^{-} → $87.5^{=}$ → $87.5^{-=}$ → 87.6 → 87.6^{-} → $87.6^{=}$ → $87.6^{-=}$ → → → → 108.0)
(The "–", "=" and "–=" indicate 25, 50 and 75 kHz frequency, respectively.)

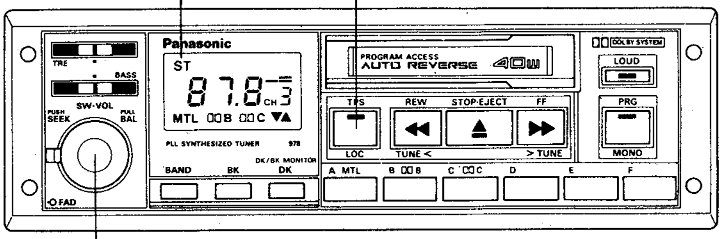

DOLBY SYSTEM
LOUD
FF
>TUNE
PRG
MONO
E
F

Mono Button (MONO)
Light comes on when the button is switched to "mono" mode. Switch the button on in weak FM signal areas to obtain clear FM reception (monaural). Push the button again (off position) for normal FM stereo reception, and the light goes out.

c. Seek Tuning

FM Stereo
"ST" Indicator

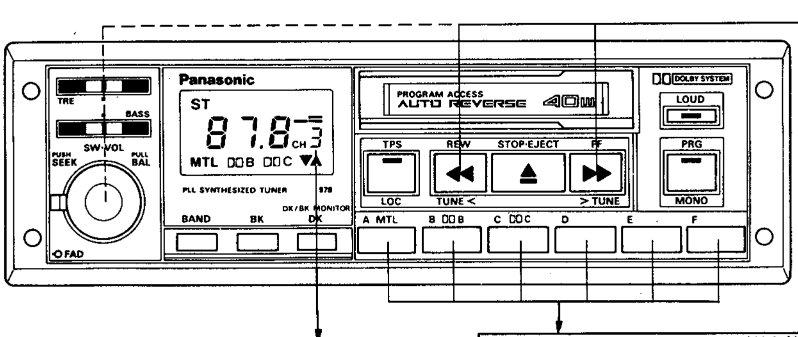
Local/Distant Sensitivity Button (LOC)
Light comes on when the button is switched to "local" mode.
While seek tuning, if you feel there are too many stations (even weak ones) being received, switch the button on to receive nearby local stations only. Push the button again (off position) for distant radio stations, and the light goes out.


Panasonic
ST
87.8 CH 3
MTL DDB DDC
PLL SYNTHESIZED TUNER
BAND BK DK
DK/BK MONITOR
TRE BASS
SW·VOL
PUSH SEEK
PULL BAL
FAD
PROGRAM ACCESS
AUTO REVERSE 40W
TPS REW STOP·EJECT FF
LOC TUNE< >TUNE
A MTL B DDB C DDC D E F
DOLBY SYSTEM
LOUD
PRG
MONO

Seek Tuning Pushbutton (PUSH SEEK)
Each time you push the button, seek tuning is automatically done and will stop on the broadcasting radio station. If the button is pushed again, the next radio station will come out automatically. The seek tuning will count up in sequence only.

d. Preset Station Selectors

Six stations each for the MW and FM bands and three stations for the LW band can be preset in the electronic memory circuit on these six buttons ("A" – "F"), respectively. Each button is indicated on the display panel as follows:
"A" button as " CH1 ", "B" button as " CH2 ", "C" button as " CH3 ", "D" button as " CH4 ", "E" button as " CH5 " and "F" button as " CH6 ".


Panasonic
ST
87.8 CH3
MTL DOB DOC ▼▲
PLL SYNTHESIZED TUNER
DK/BK MONITOR
BAND
BK
DK
TRE
BASS
PUSH SEEK
SW·VOL
PULL BAL
FAD
PROGRAM ACCESS AUTO REVERSE 40W
DOLBY SYSTEM
LOUD
TPS
REW
STOP·EJECT
FF
PRG
LOC
TUNE <
> TUNE
MONO
A MTL
B DOB
C DOC
D
E
F

Manual/Seek Tuning Pushbuttons
Find the station you want by seek tuning or manual tuning.

Indicates the selected preset station on the "C" button.

Preset Station Selectors ("A" – "F")
Hold one of the preset station selectors in for several seconds. (While holding the preset station selector, the radio cannot be heard, "muting" circuit operates. This will activate the memory circuit to preset the desired station.) Release the preset station selector after you hear the radio again. The frequency display will also blink once when memory is activated. The preset station is indicated on the display panel.
NOTES:
1. Memory will not activate when the preset station selector is "hurriedly" released.
2. If any of these preset station selectors is accidentally pushed and held for several seconds (about more than 2 sec.), the previously "preset" station will be erased; and instead a different station will be entered into that memory circuit.

You can choose any one of the preset station selectors to preset the station. Thus, the six selectors can be used to set a total of 15 stations (three for LW, six for MW and six for FM).

NOTE:
When the radio is at the SK/BK, DK reception, these six selectors are used for "BK" search tuning and for automatic presettings of up to six "VF" broadcast stations. Refer to Section III "SK/BK, DK Reception" for more details.

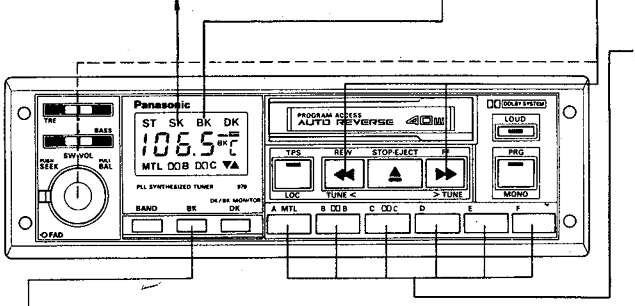
4. SK/BK, DK(VF) Reception (Traffic-Information Broadcast Station)

- Please refer to the "VF" area map (enclosed with this unit) for your designated traffic-information broadcast stations (Area "A" – "F").

a. SK/BK Reception

"SK" Indicator
Illuminates when the traffic-information broadcast station is tuned in.

"BK" Indicator
Illuminates when the BK button is switched on.


Panasonic
ST SK BK DK
106.5 BK C
MTL DOB DOC ▼▲
PLL SYNTHESIZED TUNER
DK/BK MONITOR
BAND
BK
DK
TRE
BASS
PUSH SEEK
SW·VOL
PULL BAL
FAD
PROGRAM ACCESS AUTO REVERSE 40W
LOUD
TPS
REW
STOP·EJECT
FF
PRG
LOC
TUNE <
> TUNE
MONO
A MTL
B DOB
C DOC
D
E
F

1. BK Button (BK)
Push the BK button for "VF" traffic-information broadcast reception.

2. "SK" search tuning, Manual/Seek Tuning, Pushbuttons
Tune in the traffic-information broadcast station by seek tuning (or manual tuning).
When the traffic-information broadcast station is searched, it is indicated on the display panel (" BKA "," BKB "," BKC "," BKD "," BKE "," BKF ").

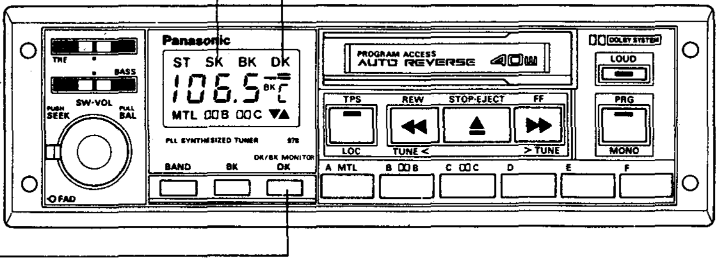
3. "BK" search tuning
Designated "VF" Area Buttons ("A" – "F")
- The corresponding area button, wherein the traffic-information broadcast station is received, will be indicated on the display panel. For example, if the traffic-information broadcast station is in the "C" area button, the "   " will appear on the display. That station will automatically be memorized on the "C" button.
- If you want to hear your desired Designated Area traffic-information, select that designated area and push the corresponding designated area button. The "VF" traffic-information on that area will be automatically tuned in when that designated area button is pushed **again.** (When the "BK" broadcast station on that designated area button cannot be searched, the "SK" search tuning will automatically operate.)

NOTES:
1. Every time the traffic-information broadcast station is "on air" the normal FM radio program will temporarily be stopped. The "SK" indicator lights up.
2. If the traffic-information broadcasting station cannot be received due to weak signal when the desired designated "VF" area button is pushed, the "SK" indicator will not light up. In this case, push that same area button again or select another "VF" station by seek tuning.

b. DK Reception

"SK" Indicator
Illuminates when the traffic-information broadcast station is tuned in.

"DK" Indicator
Illuminates when the DK button is switched on.


Panasonic
ST SK BK DK
106.5
MTL DOB DOC
TRE
BASS
SW-VOL
PUSH SEEK
PULL BAL
FAD
PLL SYNTHESIZED TUNER
DK/BK MONITOR
BAND
BK
DK
PROGRAM ACCESS AUTO REVERSE 40W
LOUD
TPS
REW
STOP·EJECT
FF
PRG
LOC
TUNE <
> TUNE
MONO
A MTL
B DOB
C DOC
D
E
F

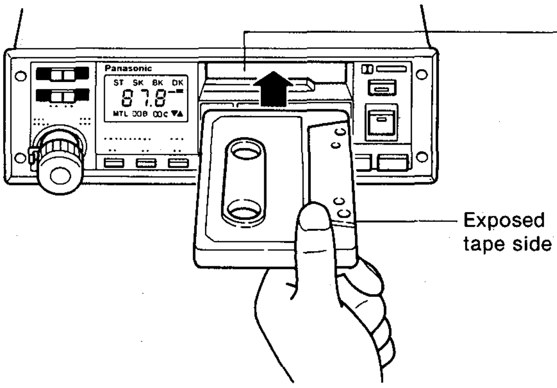
DK Button (DK)
Push the DK button. DK tuning is used for listening to "VF" traffic-information programs **only**. Other programs will be cut off.
"DK" indicator illuminates when the button is switched on.

NOTES:

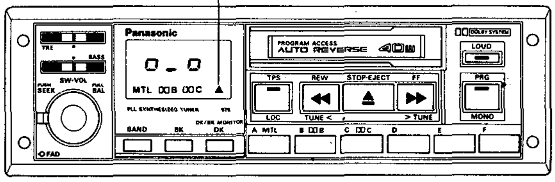
1. During tape play, the "VF" broadcast station can **still** be heard automatically as long as the BK button is switched on.
2. If you drive away from the tuned in "VF" broadcast station, the signal will become weak, and the "SK" indicator will go off and after about 15 seconds a "beep" warning sound can be heard (as long as the "DK" indicator is lighting up). Then the "BK" search tuning will automatically operate. If a new "VF" broadcast station is searched, a "beep" sound can be heard again. If the "BK" cannot be searched, the "SK" search tuning will automatically operate. (This explanation is also true during tape playback.)
3. If manual tuning is pushed, DK will **not** be available and the radio will switch to SK/BK mode unless the DK button is pushed again.

5. Listening to the Cassette Tape

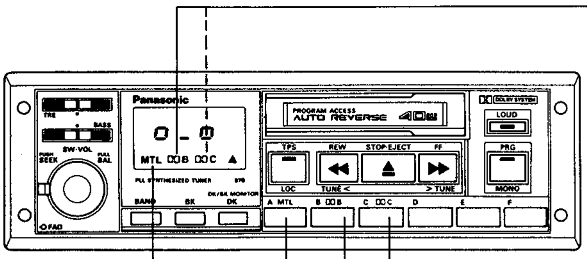
- Cassette operation controls are indicated by green illuminations. (During "VF" reception the illumination will change to orange.)


Panasonic
ST SK BK DK
87.8
MTL DOB DOC
Exposed tape side

Cassette Slot
Insert cassette with exposed tape side facing to the right. Push inward until the mechanism captures the cassette. Playback starts automatically when the cassette tape is inserted. Radio (except "VF" reception) will not work while a tape is playing.


Panasonic
0 - 0
MTL DOB DOC ▲
PROGRAM ACCESS AUTO REVERSE 40W
TPS
REW
STOP·EJECT
FF
PRG
LOUD
LOC
TUNE <
> TUNE
MONO
BAND
BK
DK

Tape Direction Indicator
The tape direction indicator (0_0▲ or 0‾0▼) appears on the display panel during tape playback.
0_0▲ : Indicates the top side of the cassette is being played.
0‾0▼ : Indicates the bottom side of the cassette is being played.
NOTE:
However, when the BK button is switched on, before or after the tape is inserted, the "VF" frequency appears on the display panel.


Panasonic
TRE
BASS
PUSH SEEK
SW-VOL
FULL BAL
O FAD
MTL DDB DDC ▲
PLL SYNTHESIZED TUNER
PROGRAM ACCESS AUTO REVERSE
DOLBY SYSTEM
LOUD
TPS
REW
STOP-EJECT
FF
PRG
LOC
TUNE <
> TUNE
MONO
BAND
BK
DK
DK/BK MONITOR
A MTL
B DDB
C DDC
D
E
F

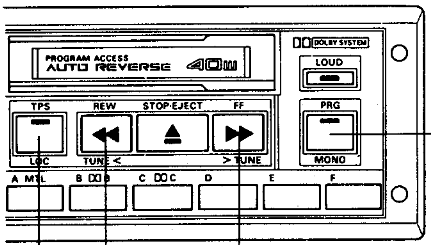
Dolby "B" or "C" NR Indicator (DDB / DDC)
Light comes on when the Dolby "B" or "C" NR button is switched on.

Dolby "B" or "C" Noise Reduction Button (DDB / DDC)
Push any of these buttons according to what Dolby system "B" or "C" your tape has been recorded. The Dolby NR indicator "DDB" or "DDC" will light up.
Dolby "B" : Reduces noise by about 10 dB.
Dolby "C" : Reduces noise by about 20 dB.
Push button again (Dolby NR indicator goes off) for playback of tape not recorded by the Dolby Noise Reduction System "B" or "C". Cassette tapes not recorded with Dolby NR do not benefit from use of Dolby NR during playback.
Using the Dolby NR System on non-Dolby-encoded tape causes high frequency imbalance.
NOTE:
The Dolby NR circuit will not operate during radio reception.

Metal Tape Selector (MTL)
Push and the metal indicator comes on, for playing metal or CrO₂ tape.
Push again (metal indicator goes off) for playback of normal tape.
NOTE:
Wrong setting will cause high frequency imbalance.

Metal Indicator (MTL)
Light comes on when the metal tape selector is switched on.

- Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
- "Dolby" and the double-D symbol are trade marks of Dolby Laboratories Licensing Corporation.


PROGRAM ACCESS AUTO REVERSE
DOLBY SYSTEM
LOUD
TPS
REW
STOP-EJECT
FF
PRG
LOC
TUNE <
> TUNE
MONO
A MTL
B DDB
C DDC
D
E
F

Tape Program Selector (PRG)
Push this button if you want to change the direction of tape play as indicated by the tape direction indicator. If the button is not pushed, tape direction will change automatically at the end of the tape (Auto Reverse System).

Rewind/Fast Forward Buttons (REW/FF)
Make sure the TPS button is not switched on. Otherwise, the TPS circuit will operate.

- Push the FF button for fast forward. When the tape reaches its end, Auto Reverse will operate and the opposite side of the tape plays back.
- Push the REW button for rewind. When the tape is fully rewound, tape plays back again the same side of the tape.
- To stop REW or FF operation, push the STOP/EJECT button. Then the tape play will resume from that position.

NOTES:
1. The REW or FF button should be pushed after the tape has started playback.
2. If the TPS button is switched on during REW or FF operation, the tape will stop and start playing the beginning of the nearest music program. See explanation on "TPS Button".
3. The tape direction indicator (O_O or O‾O) will blink during REW or FF operation.

TPS Button (TPS)
The tape program sensor (TPS) button, if switched on, will search up to nine programs in a prerecorded music tape.
Light comes on when the TPS button is switched on.
For further details on the TPS button, refer to **Box 1**.

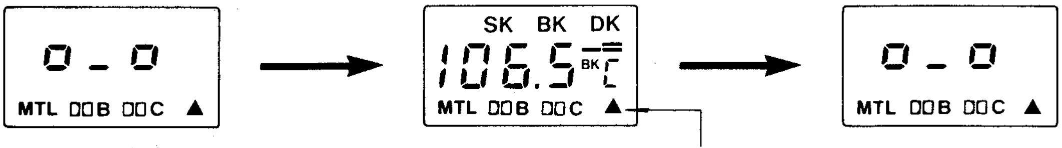
DK Button (DK/BK MONITOR)
During tape playback, if you want to listen to the radio momentarily, simply push the DK button. Tape playback will stop (pause mode) and the radio can be heard. To resume tape playback, push the DK button again.
NOTE:
This explanation is only possible if the BK button is switched on.

a. "VF" (Traffic- Information Broadcast) Display mode during tape operation.

- When the BK button is switched on, the "VF" broadcast station will appear on the display panel.

If BK button
is switched on.

Push band selector and tape
direction indicator reappears.


O_O
MTL DDB DDC ▲
SK BK DK
106.5
BK
MTL DDB DDC ▲
O_O
MTL DDB DDC ▲

Tape play display.

"VF" broadcast
station appears.

Remain lit up.

b. Tuning in the "VF" Traffic-Information during tape operation

1. Push the BK button. The BX indicator lights up.
2. Tune in to the "VF" broadcast station;
   - Using seek tuning ("SK" search tuning).
     Push seek tuning pushbutton. The "VF" broadcast station will appear on the display panel.
   - Using manual tuning (TUNE< or >TUNE) or "BK" search tuning ("VF" area buttons "A" – "F").
     Push the DK button to off. The DK indicator should **not** be lighting up. Then push the up/down tuning pushbutton (TUNE< or >TUNE) for manual tuning. Or, push any designated area buttons ("A" – "F") by following the instructions on page 5 under the "BK" search tuning.

NOTE:
When the "VF" traffic-information broadcase (DK) is "on air", tape play will stop (tape at "pause" mode). (Tape can be ejected, if necessary, during "VF" traffic-information reception.) Tape play will resume after the traffic-information broadcast is terminated.

Box 1: TPS button (Tape Program Sensor)
Push this button according to the numbers of the program (music) you want to select. The TPS will find the starting point of up to nine music programs in a prerecorded music tape. The quiet space between programs (must have at least a 4 sec. gap) can be sensed by the tape program sensor (TPS) circuit. If TPS is not required, push the TPS button again and the light goes off.
NOTE:
Most commercially available music cassette tapes are suitable for TPS system.

NOTES:
1. If the TPS button is switched off at the middle of the TPS operation, the fast forward or rewind operation will instead operate. See explanation on "Rewind/Fast Forward Buttons".
2. TPS system will only operate after a lapse of about 1.5 seconds from the start of playback.

Tape not suitable for TPS operation:
The TPS circuitry may not function properly for tapes described below, causing tapes to stop midway through a program or to overrun the space between programs.
1. Tapes which contain intermittent sound program, such as conversations, lectures, news, pianissimo-featured classical music, or music that includes many silent or mute passages.
2. Tapes which have a very short time interval between recorded programs.
3. Tapes which have a high level of noise or hum between programs.

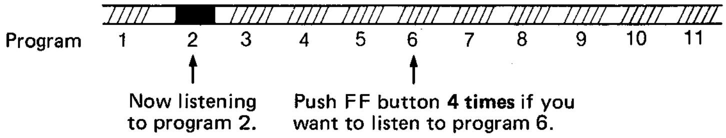
How to operate the TPS:

- Push the TPS button and the light comes on.

1. Forward TPS:

Pushing the FF button once will play the beginning of the next music. Pushing twice will go forward to the beginning of the second music and so forth. Up to 9 programs can be selected.

- **Forward TPS Operation:**



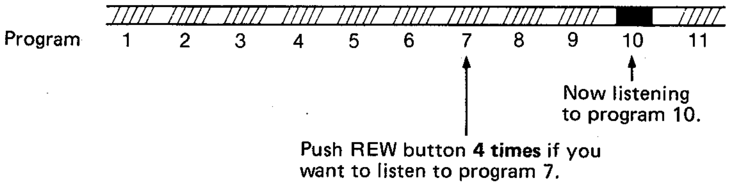
Now listening to program 2.

Push FF button **4 times** if you want to listen to program 6.

2. Rewind TPS:

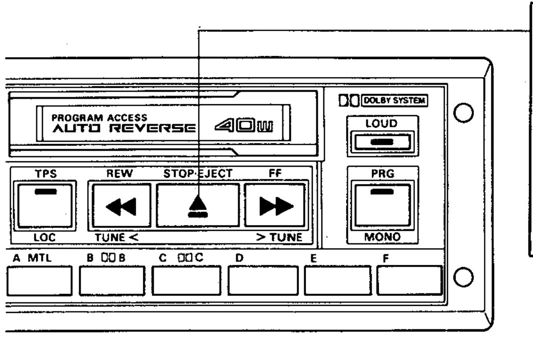
Pushing the REW button once will replay the beginning of the music just listened to. Pushing twice will go back to the beginning of the previous music and so forth. Up to 9 programs can be selected.

- **Rewind TPS Operation:**



Now listening to program 10.

Push REW button **4 times** if you want to listen to program 7.



Stop/Eject Button (STOP/EJECT)
To Stop playing, push this button. The cassette will pop out for removal, and the radio will be heard again.
NOTES:
1. If power is switched off before the STOP/EJECT button is pushed, the cassette will not eject. Switch on the power again and push the STOP/EJECT button to eject the cassette.
2. The cassette should always be removed from the cassette slot when not in use.

BEDIENUNGSELEMENTE
(CQ-984EG)

1. Vor dem Betrieb

Vor der Inbetriebnahme, unbedingt die Auswurftaste drücken.

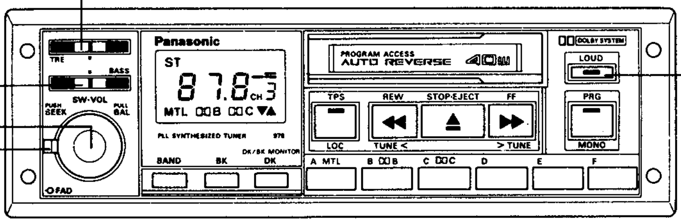
- Manchmal könnte der Cassettenhalter aufgrund der während des Transportes auftretenden Stöße verriegelt werden.
  Nach Ausführung aller Anschlüsse ist die Auswurftaste zu drücken, um das Cassettendeck in den betriebsbereiten Zustand zu versetzen.
- Die Cassette erst einsetzen, nachdem alle Anschlüsse ausgeführt wurden. Dieses Modell ist mit einem elektronischen Auswurfsystem ausgerüstet, d. h. die Cassette kann nur bei eingeschalteter Stromversorgung ausgeworfen werden.

2. Hauptschalter

1. Ein/Aus-Schalter/Lautstärkeregler/Balanceregler (SW-VOL/PULL BAL)
Ein/Aus-Schalter: Drehen Sie den Knopf im Uhrzeigersinn, um das Gerät einzuschalten. Auf dem Display erscheint die Radiofrequenz. Zum Ausschalten des Geräts den Knopf ganz gegen den Uhrzeigersinn drehen, bis ein Klicken zu hören ist.
Lautstärkeregler: Die gewünschte Lautstärke mit diesem Knopf einstellen. Den Knopf im Uhrzeigersinn drehen, um die Lautstärke zu erhöhen, und gegen den Uhrzeigersinn, um sie zu senken. Im Hinblick auf Ihre und die allgemeine Verkehrssicherheit den Lautstärkepegel so niedrig halten, daß Sie die Verkehrssituation wahrnehmen können.
Balanceregler: Um den Stereoeffekt einzustellen, am Knopf ziehen und im oder gegen den Uhrzeigersinn drehen, bis der Klang aus beiden Lautsprechern gleichmäßig, auf Ihre Sitzposition abgestimmt, ertönt.

2. Tieftonregler (BASS)
Für die gewünschte Baßabstimmung den Hebel nach rechts oder links schieben.

3. Hohenregler (TRE)
Für die gewünschte Höhenabstimmung den Hebel nach rechts oder links schieben.



4. Gehorrichtige Frequenzgangkorrektur (LOUD)
Bei eingeschalteter gehörrichtiger Frequenzgangkorrektur leuchtet ein Lämpchen auf.
Diese Kontrolleinrichtung erfüllt den Zweck menschliche Hörmängel in hohen und niedrigen Frequenzbereichen bei niedriger Lautstärke zu kompensieren. Schalten Sie die gehörrichtige Frequenzgangkorrektur zu, wenn Sie bei niedriger Lautstärke hören; und ab, bei hoher Lautstärke (Lämpchen erlöscht).

5. Überblendregler (FAD)
Drehen Sie diesen Regler im Uhrzeigersinn voll auf wenn zeri Lautsprecher angeschlossen sind. Lst der Überblendregler entgegen dem Uhrzeigersinn voll aufgedreht, bleiben die Lautsprecher stumm. Sind zusätzlich zwei weitere Lautsprecher über einen separaten Leistungsverstärker (mittels dem "VORVERSTÄRKER AUSGANGSANSCHLUSS"), angeschlossen, stimmen Sie mit dem Überblendregler den Klang zwischen den Lautsprechern ab.

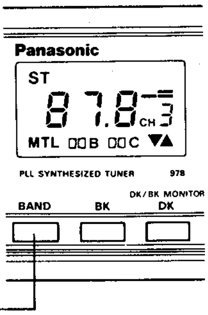
BELEUCHTUNG:
Die Kontrollanzeigen leuchten je nach Einstellungsmodus grün oder orange auf. Grün bei Cassettendeckbetrieb und orange Beleuchtung bei Radiobetrieb.

3. Rundfunkempfang

- **Rediobetrib wird durch orange Beleuchtung angezeigt.**

a. Wahl des Empfangsbereichs

Empfangsbereichwähler (LW-MW-UKW)(BAND)
Bei jeweiligem Knopfdruck wird ein Empfangsbereich gewählt.
Die Bandfrequenz wird auf dem Display angezeigt.
HINWEIS:
Für "VF"-Verkehrsfunkempfang (vgl.Teil III), drücken Sie die BK-Taste. Bei eingeschaltetem Empfangsbereichwähler wird auf den vorher gehörten Sender (LW, MW oder UKW) zurückgeschaltet.

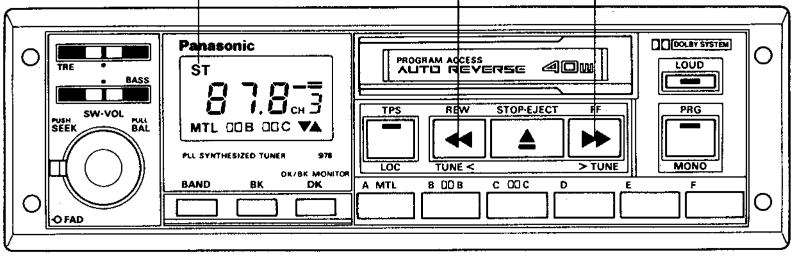


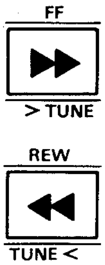
Frequenzbereiche:		
LW	:	153 kHz ~ 281 kHz
MW	:	531 kHz ~ 1602 kHz
UKW	:	87,5 MHz ~ 108 MHz

b. Manuelle Abstimmung

UKW-Stereo "ST"-Anzeige leuchtet auf, wenn das Radio auf UKW gerade in "UKW-Stereo" sendet.

Manuelle Höhen-/Tiefenabstimmregler (TUNE)
Hiermit stimmen Sie die gewünschte Senderfrequenz ab.
HINWEIS:
Halten Sie den Schalter länger als eine halbe Sekunde gedrückt, verändert sich die Senderfrequenz schnell nach oben oder unten. Dies stoppt, sobald Sie loslassen.


Panasonic
ST
87.8
CH 3
MTL
TRE
BASS
SW-VOL
PUSH SEEK
PULL BAL
FAD
PLL SYNTHESIZED TUNER
BAND
BK
DK
DK/BK MONITOR
PROGRAM ACCESS
AUTO REVERSE
40W
DOLBY SYSTEM
LOUD
TPS
REW
STOP-EJECT
FF
LOC
TUNE <
> TUNE
PRG
MONO
A MTL
B
C
D
E
F

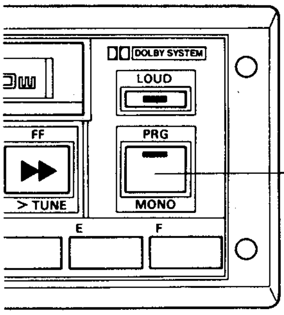

FF
> TUNE
REW
TUNE <

Drücken Sie hier für höhere Frequenzbereiche

Drücken Sie hier für niedrigere Frequenzbereiche

HINWEIS:
Jedesmal, wenn Sie die manuellen "TUNE<" tiefer oder ">TUNE" höher Druckknopfschalter betätigen, verändern Sie die Frequenz. Dies verdeutlicht untenstehendes Beispiel der sich verändernden Frequenzanzeige:

LW : 1 kHz per Druck (z.B.: 153 → 154 → 155 → 156 → 157 → 158 → → → → 281)
MW : 9 kHz per Druck (z.B.: 531 → 540 → 549 → 558 → 567 → 576 → → → → 1602)
UKW : 25 kHz per Druck (z.B.: 87.5 → 87.5^{-} → $87.5^{=}$ → $87.5^{-=}$ → 87.6 → 87.6^{-} → $87.6^{=}$ → $87.6^{-=}$ → → → → 108.0)
(Die Symbole "–", "=", "–=" stehen für 25, 50, und 75 kHz.)

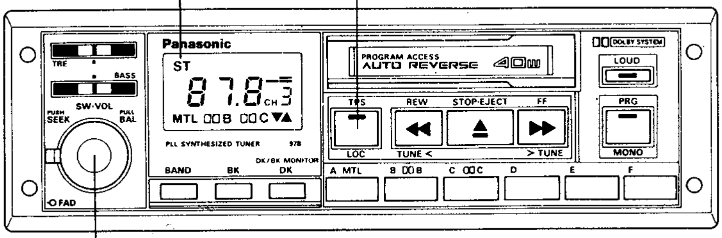

DOLBY SYSTEM
LOUD
FF
> TUNE
PRG
MONO
E
F

Mono-Wahlschalter (MONO)
Ein Lämpchen leuchtet auf, wenn die Taste auf "Mono"-Betrieb steht. In Gebieten mit schwacher UKW-Senderstärke schalten Sie die Taste zu, um einen klaren UKW-Empfang (monaural) zu erhalten. Für normalen UKW-Stereoempfang drücken Sie die Taste nochmals (Aus-Stellung); das Lämpchen erlöscht.

c. Automatischer Sendersuchlauf

UKW-Stereo "ST"-Anzeige

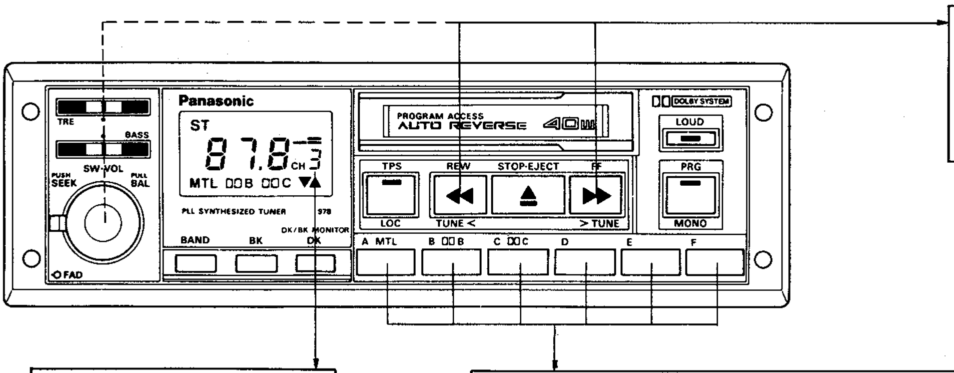
Wahlshalter für Nah-/Fernempfang (LOC)
Ist die Taste auf Nahempfang (LOC) geschaltet, leuchtet ein Lämpchen auf.
Treten bei der Sendersuche Störunggeräusche durch Überlappung mehrerer (auch schwacher) Sender auf, drücken Sie diese Taste. Sie empfangen dann nur noch örtlich nahe Sender. Drücken Sie die Taste noch einmal (Aus-Stellung) um auch entfernte Sender zu empfangen. Das Lämpchen erlöscht.


Panasonic
ST
87.8
CH 3
MTL
TRE
BASS
SW-VOL
PUSH SEEK
PULL BAL
FAD
PLL SYNTHESIZED TUNER
BAND
BK
DK
DK/BK MONITOR
PROGRAM ACCESS
AUTO REVERSE
40W
DOLBY SYSTEM
LOUD
TPS
REW
STOP-EJECT
FF
LOC
TUNE <
> TUNE
PRG
MONO
A MTL
B
C
D
E
F

Sendersuchlauftaste (PUSH SEEK)
Bei jeder Betätigung dieser Taste setzt die automatische Sendersuche ein; der Suchlauf stoppt bei der ersten gerade sendenden Rundfunkstation. Ein weiteres Drücken auf die Suchlauftaste findet automatisch den nächsten Sender. Der automatische Sendersuchlauf funktioniert nur in Richtung töhere Frequenzbereiche.

d. Festsendertasten

Mit den sechs Tasten ("A" – "F") können-auf UKW und MW sechs Sender und auf LW drei Sender im elektronischen Speicher vorprogrammiert werden. Auf der Anzeige werden sie wie folgt ausgewiesen: Taste "A" als " CH1 ", Taste "B" als " CH2 ", Taste "C" als " CH3 ", Taste "D" als " CH4 ", Taste "E" als " CH5 " und Taste "F" als " CH6 ".



Manuelle/Sendersuchlauftasten
Finden Sie den gewünschten Sender mit manueller oder automatischer Suchlaufeinstellung.

Zeigt den gewählten Fastsender an, der hier mit der Taste "C" abgerufen wurde.

Fastsendertasten ("A" – "F")
Eine dieser Festsendertasten für ein paar Sekunden gedrückt halten. (Bei gedrückter-Festsendertaste kann kein Radio gehört werden, die "Mutingschaltung" arbeitet. Dieses aktiviert den Speicherschaltkreis zur Auswahl des gewünschten Senders.) Nachdem Sie das Radio wieder hören, lassen Sie die Taste los. Die Frequenzanzeige blinkt auch einmal auf wenn der Speicher aktiviert ist. Der vorprogrammierte Sender wird auf dem Display angezeigt.
HINWEISE:

1. Der Speicher wird nicht aktiviert, wenn die Festsendertaste zu schnell losgelassen wird. Beachten Sie deshalb die Frequenzbereichsanzeige auf dem Display. Diese blinkt einmal auf, sobald der Speicher aktiviert ist.
2. Wird eine dieser Festsendertasten versehentlich gedrückt und für mehrere Sekunden gedrückt gehalten (ca. zwei Sekunden oder länger), wird der ehemals einprogrammierte Sender gelöscht und a seiner Stelle ein anderer Sender im Memory gespeichert.

Sie können jede der Festsendertasten zur Sendervorprogrammierung einsetzen. Dadurch können Sie insgesamt fünfzehn Sender speichern (Drei auf LW und sechs jeweils auf MW und UKW).
HINWEIS:
Wenn das Gerät auf SK/BK oder DK Empfang geschaltet ist, werden diese sechs. Wahltasten zum "BK"-Suchlauf und zur automatischen Vorwahl von bis zu sechs "VF"-Verkehrsfunksendern verwendet. Nähere Einzelheiten entnehmen Sie bitte dem Abschnitt III "SK/BK, DK-Empfang".

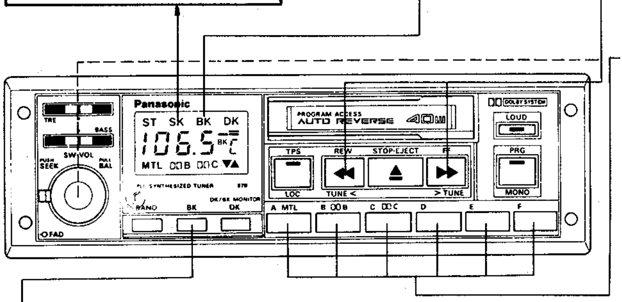
4. Empfang von Verkehrsfunkinformationen: SK/BK, DK (VF)

- **Für Verkehrsfunkstationen siehe "VF"-Empfangskarte (Bereich "A" – "F"), die mit diesem Gerät geliefert wird.**

a. SK/BK Emptang

"SK"-Anzeige
Die "SK"-Anzeige leuchtet auf, wenn auf eine Verkehrsfunkstation eingestellt ist.

"BK"-Anzeige
"BK"-Anzeige leuchtet auf, wenn die BK-Taste einges chaltet ist.



1. BK-Taste (BK)
Drücken Sie die BK-Taste für "VF" Verkehrsfunkempfang.

2. "SK"-Suchlauf
Manuelle/Sendersuchlauftasten
Auf die gewünschte Verkehrsfunkstation abstimmen (manuell, oder mit automatischem Sendersuchlauf). Wenn ein Verkehrsfunksender gefun den ist, wird dies auf dem Display angezeigt (" BKA "," BKB ", " BKC "," BKD "," BKE ", " BKF ").

3. "BK"-Suchlauf
"VF"-Bereichstasten ("A" – "F")

- Die Bereichstaste, welche den Empfang einer Verkehrsfunkstation ermöglicht, wird auf dem Display angezeigt. Wenn z.B. eine Verkehr sfunkstation im Bereich der Taste "C" sendet, dann erscheint " BKC " auf der Anzeige. Diese station wird automatisch auf der "C"-Taste gespeichert.
- Wenn Sie den Verkehrsfunk eines bestimmten Gebietes hören wollen, drücken Sie einfach die entsprechende Bereichstaste. Der "VF"-Verkehrsfunk dieses Gebietes wird automatisch eingestellt wenn Sie die Bereichstaste **noch einmal** drücken. (Kann der "BK"-Sender mit dieser Bereichstaste nicht gefunden werden, arbeitet automatisch die "SK"-Senderwahl.)

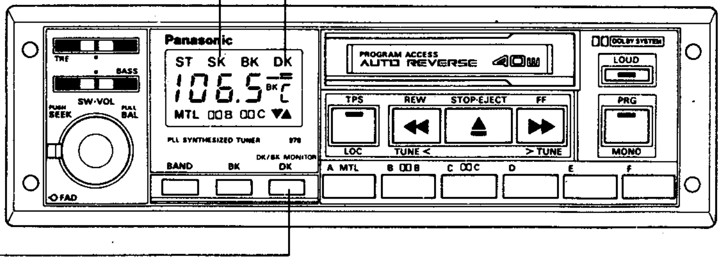
HINWEISE:

1. Jedesmal wenn die Verkehrsfunkstation eine Verkehrsinformation sendet, wird das normal UKW-Programm zeitweilig unterbrochen und die "SK"-Anzeige leuchtet auf.
2. Falls bei schwach einfallender Verkehrsfunkstation die "VF"-Bereichstaste gedrückt wird, leuchtet die "SK"-Anzeige nicht auf. In diesem Fall die gleiche Bereichstaste noch einmal drücken bzw. mit automatischem Sendersuchlauf eine andere "VF"-Station einstellen.

b. DK-Empfang

"SK"-Anzeige
Die "SK"-Anzeige leuchtet auf, wenn eine Verkehrsfunkstation eingestellt ist.

"DK"-Anzeige
Die "DK"-Anzeige leuchtet auf, wenn die DK-Taste eingeschaltet ist.


Panasonic
ST SK BK DK
106.5
MTL
PLL SYNTHESIZED TUNER
BAND BK DK
DK/BK MONITOR
TRE BASS
SW-VOL
PUSH SEEK
PULL BAL
FAD
PROGRAM ACCESS AUTO REVERSE
LOUD
TPS REW STOP-EJECT FF
PRG
LOC TUNE< >TUNE
MONO
A MTL B C D E F

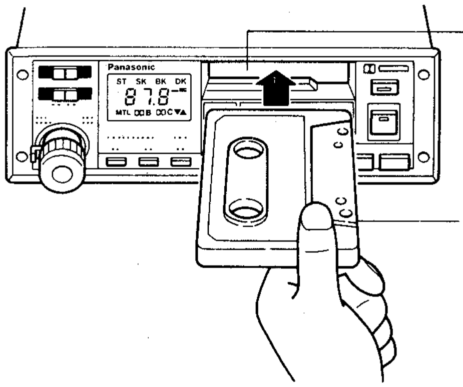
DK-Taste (DK)
Drüchen Sie die DK-Taste. Die DK-Einstellung wird verwendet, wenn man **nur** "VF"-Verkehrsfunkinformationen hören will. Andere Programme werden unterdrückt.
Die "DK"-Anzeige leuchtet auf, wenn die Taste gedrückt ist.

HINWEISE:

1. **Auch** bei Cassettenbetrieb kann der "VF"-Verkehrsfunk **immer** automatisch gehört werden, solange die BK-Taste zugeschaltet ist.
2. Wenn Sie aus dem Bereich des eingestellten Verkehrsfunksenders herausfahren, wird das Signal schwächer und die "SK"-Anzeige erlischt. In diesem Fall ertönt nach fünfzehn Sekunden ein "Piep"-Warnton, solange die "DK"-Anzeige erleuchtet ist. Jetzt setzt automatisch der "BK"-Suchlauf ein. Ist ein neuer Verkehrsfunksender gefunden, hören Sie wieder einen "Piep" Ton. Wenn nicht mit "BK" gesucht werden kann, arbeitet automatisch der "SK"-Suchlauf. (Dies gilt auch bei Cassettenbetrieb.)
3. Ist manuelle Senderwahl eingestellt, steht die DK-Funktion **nicht** zur Verfügung und das Gerät schaltet auf SK/BK-Betrieb, ausser die DK Taste wird wieder gedrückt.

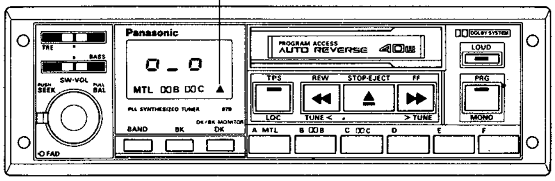
5. Tonband-Wiedergabe

- **Cassettendeckbetrieb wird durch grüne Beleuchtung angezeigt. (Während "VF" Empfang wechselt die Beleuchtung auf orange.)**


Panasonic
ST SK BK DK
87.8
MTL

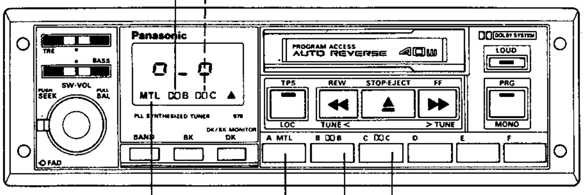
Seite mit freiliegendem Tonband

Cassettenschacht
Die Cassette mit der freiliegenden Tonbandfläche nach rechts schauend in den Cassettenschacht einschieben, bis die Cassette einrastet, worauf automatisch die Wiedergabe einsetzt. Rundfunkempfang (ausgenommen "VF"-Verkehrsfunkinformationen) ist während der Tonbandwiedergabe nicht möglich.


Panasonic
0_0
MTL
PLL SYNTHESIZED TUNER
BAND BK DK
SW-VOL
SEEK
BAL
FAD
PROGRAM ACCESS AUTO REVERSE
LOUD
TPS REW STOP-EJECT FF
PRG
LOC TUNE< >TUNE
MONO
A MTL B C D E F

Bandlaufrichtungsanzeige
Bei der Bandwiedergabe erscheinen auf dem Display die Symbole (0_0▲ oder 0‾0▼) für die Bandlaufrichtungsanzeige.
0_0▲ : Zeigt an, daß die obere Seite der Cassette gespielt wird.
0‾0▼ : Zeigt an, daß die untere Seite der Cassette gespielt wird.
HINWEIS:
Wenn allerdings vor oder nach dem Einschieben der Cassette die BK-Taste gedrückt ist, erscheint auf dem Display die "VF"-Frequenzangabe.

Dolby-NR-Anzeige "B" oder "C" (□□B/ □□C)
Ein Lämpchen leuchtet auf, wenn die Dolby-NR-Taste "B" oder "C" gedrückt ist.

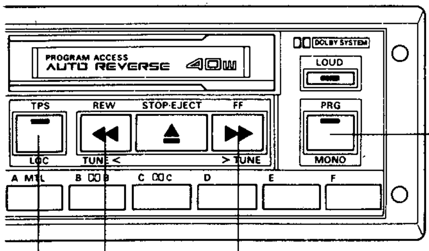


Dolby "B" oder "C" Rauschverminderungstaste (□□B/ □□C)
Drücken Sie eine der beiden Tasten, je nachdem mit welchem Dolby system Ihr Band bespielt wurde. Die Dolby-NR-Anzeige "□□ B" oder "□□C" leuchtet auf. (NR = noise reduction)
Dolby "B": Rauschminderung um ca. 10 dB.
Dolby "C": Rauschminderung um ca. 20 dB.
Für das Abspielen von Cassetten, die nicht mit einem dieser beiden Dolbysysteme bespielt wurden, drücken Sie die Taste noch einmal (Dolby-NR-Anzeige erlöscht).
Die Wiedergabe von Cassetten, die nicht mit dem Dolby-NR-System bespielt wurden, kann durch Dolby-NR nicht verbessert werden.
Eine Verwendung des Dolby-NR-Systems auf nicht mit diesem System bespielten Cassetten verursacht Unstimmigkeit im Hochfrequenzbereich.
HINWEIS:
Der Dolby-NR-Schaltkreis arbeitet nicht bei Radioempfang.

Reineisenband-Wahltaste (MTL)
Drücken Sie diese Taste für das Abspielen von Reineisen und CrO₂-Bändern und ein Lämpchen leuchtet auf.
Für das Abspielen von normalen Bändern drücken Sie die Taste noch einmal und das Lämpchen erlöscht.
HINWEIS:
Falsche Einstellung verursacht Unstimmigkeit im Hochfrequenz bereich.

Reineisenband-Anzeige (MTL)
Ein Lämpchen leuchtet auf, wenn der Band-Programmwähler eingeschaltet ist.

- Geräuschunterdrückungssystem unter Lizenz von Dolby Laboratories Licensing Corporation hergestellt.
- Das Wort "Dolby" und das Symbol des doppelten D sind die Warenzeichen von Dolby Laboratories Licensing Corporation.



Bandprogrammwähler (PRG)
Drücken Sie diese Taste, wenn Sie die Bandlaufrichtung, angezeigt durch die Bandlaufrichtungsanzeige, ändern wollen. Nicht gedrückte Taste ändert die Laufrichtung automatisch am Ende des Bandes (Auto Reverse System).

Rücklauf/Schnellvorlauftasten (REW/FF)
Überzeugen Sie sich, daß die TPS-Taste nicht gedrückt ist, sonst arbeitet der TPS-Schaltkreis.
- Drücken Sie die FF-Schnellvorlauftaste. Am Bandende schaltet sich die Auto Reverse-Funktion ein und die andere Bandseite wird abgespielt.
- Drücken Sie die REW-Rücklauftaste. Am Anfang angekommen wird die gleiche Bandseite wieder abgespielt.
- Wollen Sie die REW- oder FF-Funktion stoppen, drücken Sie die STOP/EJECT-Taste. Die Bandwiedergabe wird an dieser Position wieder einsetzen.

HINWEISE:
1. Die REW-oder FF-Taste drücken, nachdem die Wiedergabe begonnen hat.
2. Ist während REW- oder FF-Betrieb die TPS-Taste zugeschaltet, stoppt der Schnellauf am Anfang des nächsten Musikstückes und die Wiedergabe setzt ein. Vergleichen Sie dazu die Erläuterungen zur "TPS"-Taste.
3. Die Bandlaufrichtungsanzeige (0_0 oder 0‾0) blinkt während REW/FF Betrieb.

TPS-Taste (TPS)
Bei eingeschalteter TPS-Taste (Band-Programmwähler) kann man auf einem vorher bespielten Band bis zu neun Musikstücke auswählen. Ist die TPS-Taste eingeschaltet, leuchtet ein Lämpchen auf. Für weitere Erläuterungen zur TPS-Taste vergleichen Sie **Kasten 1.**

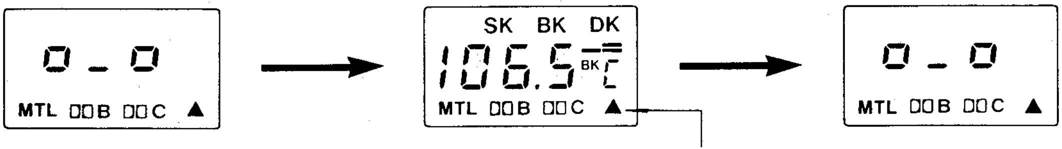
DK-Taste (DK/BK MONITOR)
Wollen Sie während Cassettenwiedergabe kurzzeitig Radio hören, drücken Sie einfach die DK-Taste. Die Band-wiedergabe wird unterbrochen (Pause-Betrieb) und das Radio kann gehört werden. Um zur Bandwiedergabe zurückzukehren, drücken Sie ein weiteres Mal die DK-Taste.
HINWEIS:
Diese Erläuterung gilt nur bei eingeschalteter BK-Taste.

a. "VF"-Verkehrsfunkanzeige Bei Cassettendeckbetrieb

- Bei zugeschalteter DK-Taste wird die "VF"-Verkehrsfunkstation auf dem Display angezeigt.

Bei eingeschalteter BK-Taste

Drücken Sie den Bandprogrammwähler und die Bandlaufrichtungsanzeige erscheint wieder.



Bandwiedergabeanzeige

Die Frequenzanzeige der "VF"-Verkehrsfunkstation erscheint.

Deise Anzeige bleibt erleuchtet.

b. "VF"-Verkehrsfunkeinsellung Während Der Bandwiergabe

1. Die BK-Taste drücken und die BK-Anzeige leuchtet auf.
2. Den "VF"-Verkehrsfunksender einstellen;
   - Durch Benutzung des automatischen Suchlaufs ("SK"-Suchlauf)
     Drücken Sie die Suchlauftaste. Der "VF"-Verkehrsfunksender wird auf dem Display angezeigt.
   - Durch manuelle Einstellung (TUNE< oder >TUNE) oder auch mit "BK"-Suchlauf ("VF"-Bereichstasten "A" – "F").
     Schalten Sie die DK-Taste aus, so daß die DK-Anzeige **nicht** mehr aufleuchtet. Dann drücken Sie eine der beiden Abstimmtasten (TUNE< oder >TUNE) für die manuelle Einstellung. Sie können aber auch eine der Gebietsbezeichnungstasten ("A" – "F") drücken und sich desweiteren an die Anweisungen auf Seite 16 ("BK"-Suchlauf) halten.

HINWEIS:
Wird eine "VF"-Verkehrsinformation (DK) durchgegeben, stoppt die Bandwiedergabe ("Pause"-Betrieb). (Falls notwendig, kann die Cassette während dem "VF" Empfang herausgenommen werden.) Die Wiedergabe wird nach Beendigung der Verkehrsdurchsage wieder aufgenommen.

Kasten 1: TPS-Taste (Band-Programmwähler)
Drücken Sie diese Taste entsprechend der Reihenfolge der Musikstücke die Sie hören wollen. Das TPS-System findet aus einem vorher bespielten Band die Anfänge von bis zu neun Musikstücken heraus. Die Intervalle zwischen den einzelnen Musikstücken (Mindestintervall 4 Sekunden) können von dem Sensor des Band-Programmwählers gefunden werden. Drücken Sie die TPS-Taste noch einmal, wenn TPS nicht verlangt wird und das Lämpchen erlöscht.

HINWEIS:
Die meisten im Handel erhältlichen Cassetten eignen sich für Betrieb mit TPS-System.

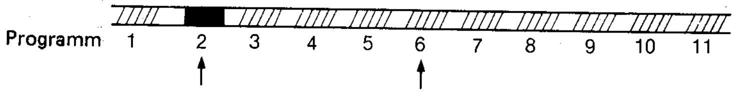
HINWEIS:
1. Wird während TPS-Betrieb die TPS-Taste ausgeschaltet, schaltet anstatt TPS der Rücklauf/Schnellvorlaufbetrieb ein. Vergleichen Sie hierzu auch die Erläuterungen zur "Rücklauf/Schnellvorlauftaste".
2. Das TPS- System tritt erst mit 1,5 Sek. Verzögerung nach Wiedergabebeginn in Funktion.

Fur TPS-Betrieb ungeeignete Cassetten:
Für unten aufgeführte Bänder kann es vorkommen, daß das TPS-System nicht problemlos funktioniert. Dies kann zur Folge haben, daß die Cassette mitten im Stück gestoppt wird, oder daß die Intervalle nicht gefunden werden.
1. Bänder, die folgende Tonpassagen enthalten: Ansagen, Vorträge, Nachrichten, klassische Musikstücke mit Pianissimo-Passagen, oder auch Musikstücke, in denen ruhige Teile vorkommen.
2. Bänder mit sehr kurzen Intervallen zwischen den einzelnen Musikstücken.
3. Bänder mit einem hohen Geräusch oder Brummpegel zwischen den einzelnen Stücken.

Und so verwenden Sie das TPS-System:
- Die Anzeige leuchtet auf, wenn die TPS Taste gedrückt wird.

1. Vorwärts TPS Betrieb:
Wird die Schnellvorlauftaste (FF) einmal gedrückt, geginnt die Wiedergabe des nächsten Musikstückes. Zweimaliges Drücken bewirkt die Wiedergabe des zweiten Musikstückes und so fort. Bis zu 9 Programme können gewählt werden.

- **TPS-Anwendung in Vorwärtsrichtung:**

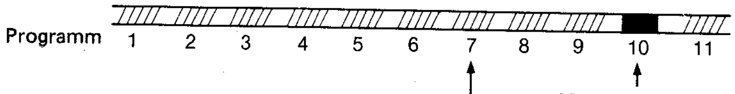


Momentan hören Sie das Musikstück 2.

Wenn Sie das Musikstück 6 hören wollen, drücken Sie die Schnellvorlauftaste (FF) vier Mal.

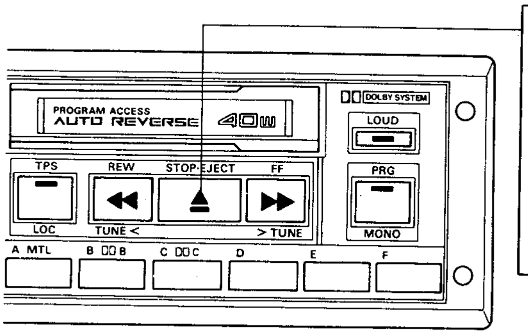
2. Rücklauf TPS Betrieb:
Wird die Rücklauftaste (REW) einmal gedrückt, wiederholt sich die Wiedergabe des zuletzt gehörten Musikstückes. Zweimaliges Drücken bewirkt die Wiedergabe des davor liegenden Musikstückes und so fort. Bis zu 9 Programme können gewählt werden.

- **TPS-Anwendung in Rückwärtsrichtung:**



Wenn Sie das Musikstück 7 hören wollen, betätigen Sie die Rücklauftaste (REW) vier Mal.

Momentan hören Sie das Musikstück 10.

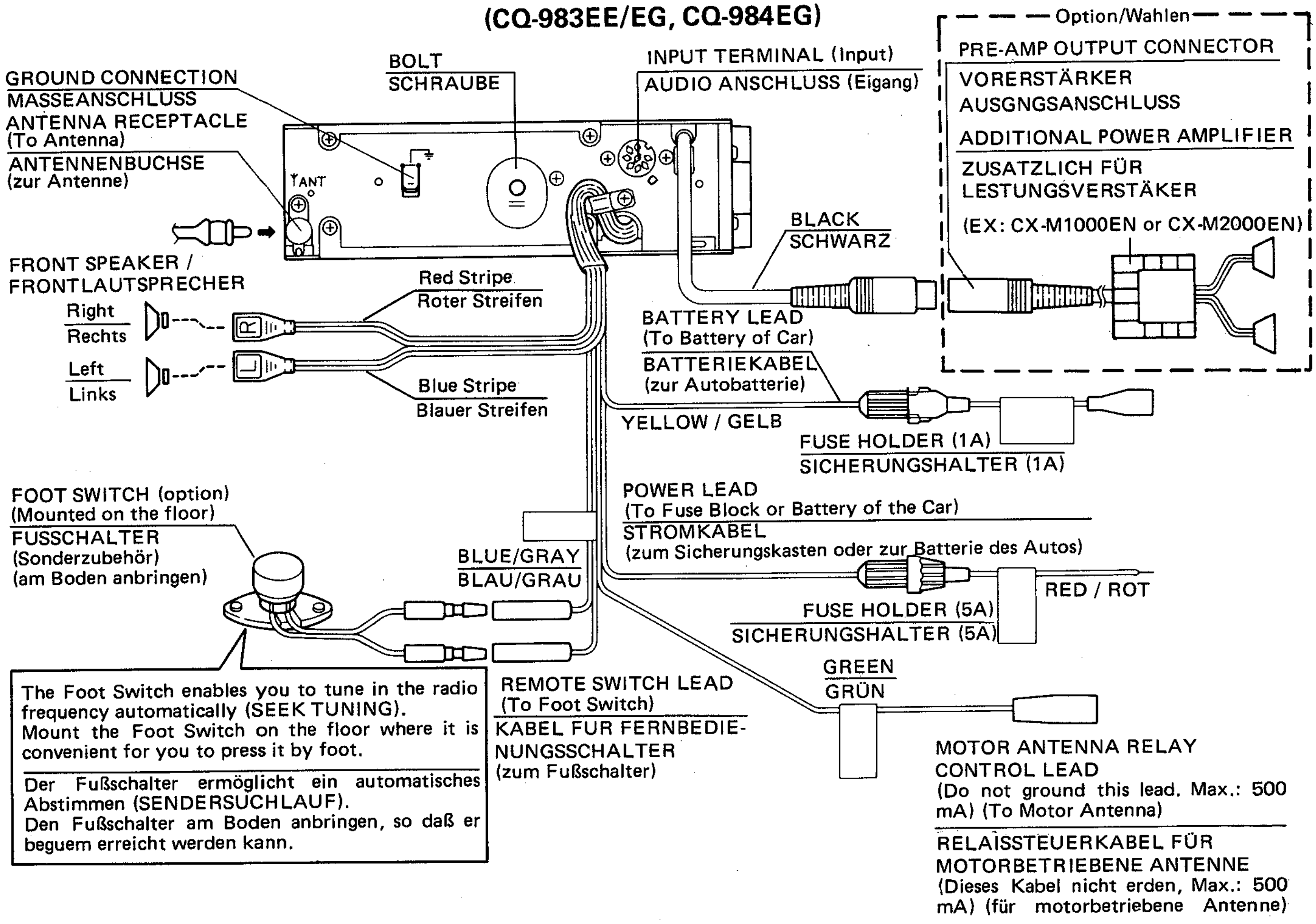


Stopp/Auswurftaste (STOP/EJECT)
Drücken Sie diese Taste, um die Wiedergabe zu stoppen. Die Cassette wird herausgefahren und der Radiobetrieb setzt wieder ein.

HINWEISE:
1. Schaltet man den Strom ab, bevor die STOPP/AUSWURFTASTE gedrückt wird, wird die Cassette nicht ausgeworfen. Schalten Sie den Stromschalter noch einmal ein und betätigen Sie die STOPP/AUSWURFTASTE, um die Cassette herauszuholen.
2. Bei Nichtbetrieb sollte die Cassette nicht im Cassettenschacht gelassen werden.

ELECTRICAL CONNECTION/ELEKTRISCHER ANSCHLUß

(CQ-983EE/EG, CQ-984EG)


Option/Wahlen
GROUND CONNECTION
MASSEANSCHLUSS
ANTENNA RECEPTACLE
(To Antenna)
ANTENNENBUCHSE
(zur Antenne)
ANT
BOLT
SCHRAUBE
INPUT TERMINAL (Input)
AUDIO ANSCHLUSS (Eigang)
PRE-AMP OUTPUT CONNECTOR
VORERSTÄRKER
AUSGNGSANSCHLUSS
ADDITIONAL POWER AMPLIFIER
ZUSATZLICH FÜR
LESTUNGSVERSTÄKER
(EX: CX-M1000EN or CX-M2000EN)
BLACK
SCHWARZ
FRONT SPEAKER /
FRONTLAUTSPRECHER
Right
Rechts
Left
Links
Red Stripe
Roter Streifen
Blue Stripe
Blauer Streifen
BATTERY LEAD
(To Battery of Car)
BATTERIEKABEL
(zur Autobatterie)
YELLOW / GELB
FUSE HOLDER (1A)
SICHERUNGSHALTER (1A)
FOOT SWITCH (option)
(Mounted on the floor)
FUSSCHALTER
(Sonderzubehör)
(am Boden anbringen)
BLUE/GRAY
BLAU/GRAU
POWER LEAD
(To Fuse Block or Battery of the Car)
STROMKABEL
(zum Sicherungskasten oder zur Batterie des Autos)
RED / ROT
FUSE HOLDER (5A)
SICHERUNGSHALTER (5A)
GREEN
GRÜN
REMOTE SWITCH LEAD
(To Foot Switch)
KABEL FUR FERNBEDIE-
NUNGSSCHALTER
(zum Fußschalter)
MOTOR ANTENNA RELAY
CONTROL LEAD
(Do not ground this lead. Max.: 500 mA) (To Motor Antenna)
RELAISSTEUERKABEL FÜR
MOTORBETRIEBENE ANTENNE
(Dieses Kabel nicht erden, Max.: 500 mA) (für motorbetriebene Antenne)

The Foot Switch enables you to tune in the radio frequency automatically (SEEK TUNING). Mount the Foot Switch on the floor where it is convenient for you to press it by foot.

Der Fußschalter ermöglicht ein automatisches Abstimmen (SENDERSUCHLAUF). Den Fußschalter am Boden anbringen, so daß er beguem erreicht werden kann.

INSTALLATION INSTRUCTION/ANWEISUNGEN FÜR EINBAU

(CQ-983EE/EG, CQ-984EG)

NOTES:

- Before installation check the radio operation with antenna and speakers.
- Disconnect the cable from the negative (–) battery terminal.

UNIT IN-DASH INSTALLATION

Installation Opening

In-dash installation of the unit can be possibly done if the car's dashboard has an opening for this unit as shown in Fig. 1. The car's dashboard should have a thickness of not more than 5.5 mm in order to make the installation of the unit be possible.

Installation Procedures

1. Insert the mounting case into the car's dashboard and bend the mounting springs correspondingly by means of a screwdriver, as shown in Fig. 2.
2. From the front, insert the unit into the mounting case and slide in until the lock springs engage on the right and left sides (distinct click audible). See Fig. 2.
3. Before definitely mounting the unit to the car's dashboard, see "To secure the Rear of the Unit" explained on the right side and check whether the rear of the unit is properly fixed to the fire wall of car. Refer to any

HINWEISE:

- Vor dem Einbau Radiofunktion mittels Antenne und Lautsprecher prüfen.
- Das kabel von der negativen (–) Batterieklemme abtrennen.

EINBAU IN DAS ARMATURENBRETT

Einbauöffnung

Das Gerät kann in das Armaturenbrett eingebaut werden, wenn das Armaturenbrett mit der in Abb. 1 gezeigten Einbauöffnung ausgestattet ist. Die Stärke des Armaturenbretts sollte nicht mehr als 5,5 mm betragen, damit die Einheit richtig eingebaut werden kann.

Einbauvorgang

1. Das Einbaugehäuse in das Armaturenbrett einführen und die Befestigungsfedern mittels Schraubenzieher biegen, wie es in Abb. 2 dargestellt ist.
2. Das Gerät von vorn in das Einbaugehäuse einführen und so weit nach hinten einschieben, bis die beiden, linksund rechtsseitigen Schließfedern mit einem deutlichen Klicken einrasten (Vgl.Abb. 2.).
3. Vor dem endgültigen Einbau des Geräts in das Armaturenbrett sind die rechts unter "Befestigung der Geräterückseite" aufgeführten Punkte zu beachten,

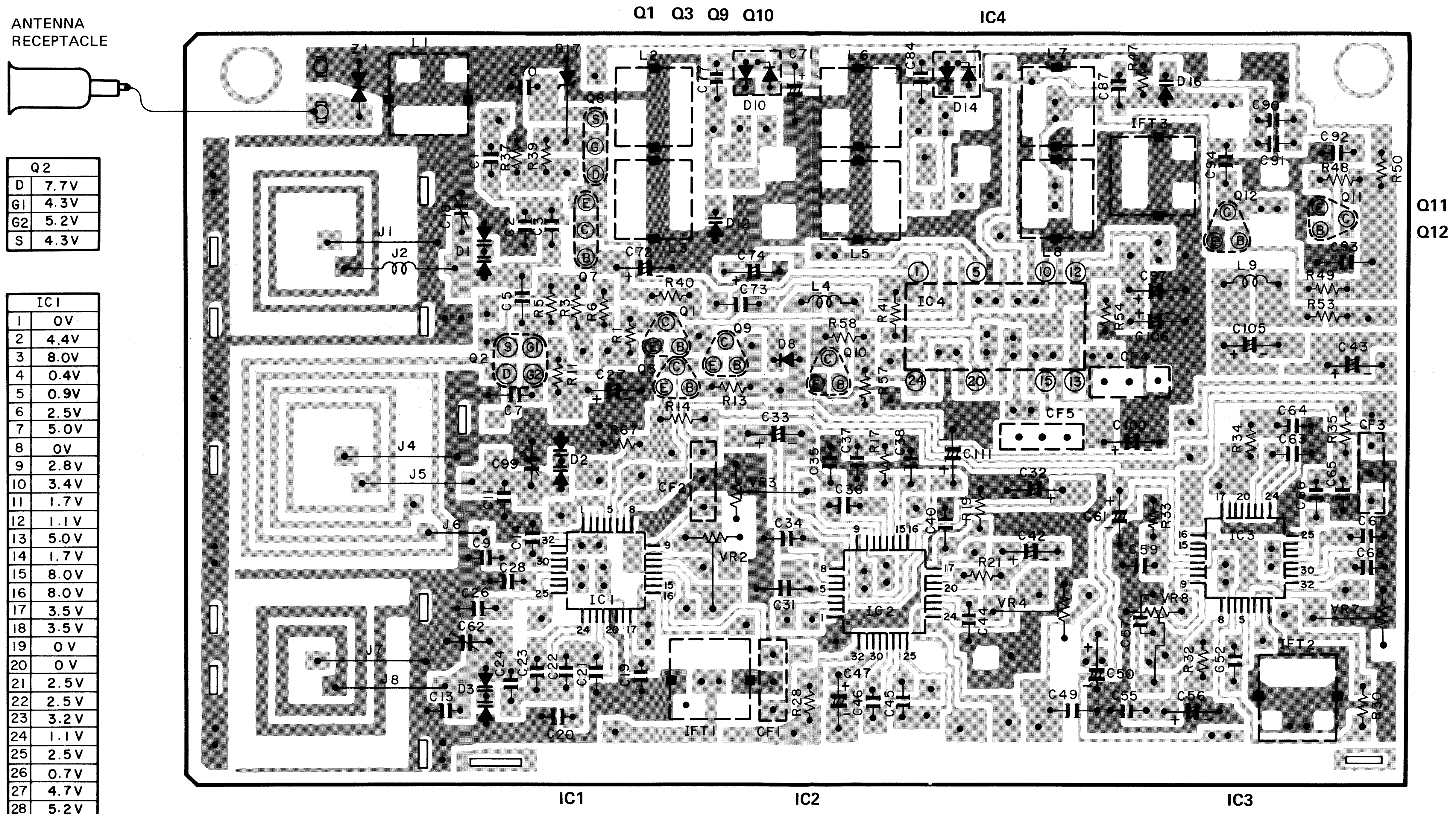
WIRING DIAGRAM MODEL CQ-983EE/EG, 984EG(RADIO BLOCK)

Q1		Q3		Q9		Q10	
B	0.1V	B	0.2V	B	4.6V	B	0.1V
C	5.2V	C	5.0V	C	4.3V	C	0.2V
E	0V	E	0.9V	E	4.1V	E	0V

IC4							
1	4.4V	7	2.0V	13	0V	19	2.3V
2	0V	8	4.1V	14	4.0V	20	1.6V
3	2.0V	9	4.1V	15	1.5V	21	0V
4	0.6V	10	6.4V	16	4.0V	22	0V
5	8.0V	11	8.0V	17	6.1V	23	3.6V
6	0V	12	8.0V	18	6.0V	24	0.1V

Q2	
D	7.7V
G1	4.3V
G2	5.2V
S	4.3V

IC1	
1	0V
2	4.4V
3	8.0V
4	0.4V
5	0.9V
6	2.5V
7	5.0V
8	0V
9	2.8V
10	3.4V
11	1.7V
12	1.1V
13	5.0V
14	1.7V
15	8.0V
16	8.0V
17	3.5V
18	3.5V
19	0V
20	0V
21	2.5V
22	2.5V
23	3.2V
24	1.1V
25	2.5V
26	0.7V
27	4.7V
28	5.2V
29	8.0V
30	0V
31	7.4V
32	4.4V


ANTENNA RECEPTACLE
Q1 Q3 Q9 Q10
IC4
Q11
Q12
IC1
IC2
IC3
Z1
L1
D17
C70
L2
C71
D10
L6
C84
D14
L7
R47
D16
C87
IFT3
C90
C91
C92
R48
R50
C94
Q12
Q11
Q8
C1
R37
R39
C18
D1
C2
C3
J1
J2
D12
C72
L3
C74
L5
L8
C93
L9
R49
R53
C97
C106
R54
C105
C43
C5
R5
R3
R6
Q7
R40
C73
L4
R58
R41
IC4
Q1
Q9
D8
Q10
R57
CF4
CF5
Q2
R1
R11
C27
Q3
R14
R13
C7
C33
C37
R17
C38
C35
C111
C100
C64
C63
R34
R35
CF3
J4
J5
D2
C99
R67
CF2
VR3
C36
C32
C65
C66
C11
J6
C9
C28
C14
C34
VR2
C40
R19
C61
R33
C42
R21
C59
IC3
C67
C68
C26
IC1
C31
IC2
VR4
C44
VR8
VR7
C62
J7
J8
C24
C23
C22
C21
C19
C47
C46
C45
C57
C50
R32
C52
IFT2
D3
C13
C20
IFT1
CF1
R28
C49
C55
C56
R30

Q11		Q12	
B	0.7V	B	0.7V
C	0.6V	C	0V
E	0V	E	0V

IC2		IC3	
1	0V	1	0V
2	2.6V	2	5.0V
3	2.6V	3	1.2V
4	1.5V	4	3.4V
5	2.6V	5	5.0V
6	2.6V	6	5.0V
7	2.6V	7	2.5V
8	2.6V	8	2.5V
9	4.8V	9	2.9V
10	2.5V	10	5.0V
11	2.5V	11	5.0V
12	2.6V	12	0.7V
13	2.6V	13	1.0V
14	2,6V	14	1.1V
15	1.9V	15	1.5V
16	1.3V	16	5.0V
17	0V	17	0V
18	2.7V	18	5.0V
19	1.5V	19	3.2V
20	8.0V	20	4.1V
21	1.8V	21	4.3V
22	0V	22	4.3V
23	1.0V	23	4.3V
24	0.7V	24	3.8V
25	2.9V	25	0V
26	0V	26	0V
27	2,9V	27	0.7V
28	0V	28	1.9V
29	2.6V	29	1.9V
30	2.6V	30	3.0V
31	0V	31	3.0V
32	5.3V	32	3.0V

- This figure shows parts viewed from pattern side.
- Chip parts and component side shown in red.

CASSETTE CAR STEREO TAPE PLAYER w/LW/MW/UKW(FM)MPX ELECTRONIC TUNER RADIO

Mar., 1985

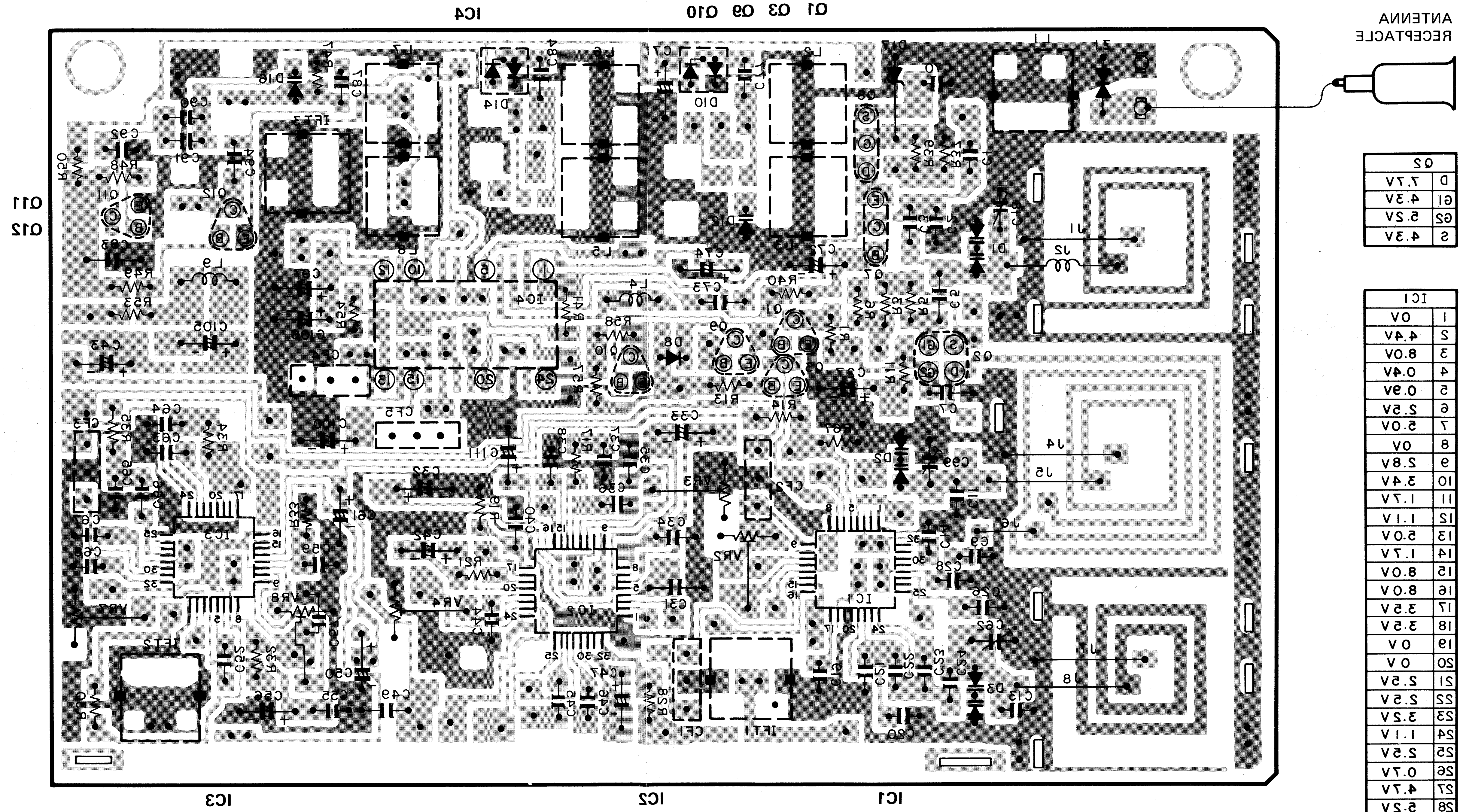
WIRING DIAGRAM MODEL CQ-983EE/EG, 984EG(RADIO BLOCK)

IC4							
1	4.4V	7	2.0V	13	0V	19	2.3V
2	0V	8	4.1V	14	4.0V	20	1.6V
3	2.0V	9	4.1V	15	1.5V	21	0V
4	0.6V	10	6.4V	16	4.0V	22	0V
5	8.0V	11	8.0V	17	6.1V	23	3.6V
6	0V	12	8.0V	18	6.0V	24	0.1V

	Q1	Q3	Q9	Q10
B	0.1V	0.2V	4.6V	0.1V
C	5.2V	5.0V	4.3V	0.2V
E	0V	0.9V	4.1V	0V

	Q11		Q12
B	0.7V	B	0.7V
C	0.6V	C	0V
E	0V	E	0V

Q2	
D	7.7V
G1	4.3V
G2	5.2V
S	4.3V


IC4
Q1 Q3 Q9 Q10
ANTENNA RECEPTACLE
Q11
Q12
IC3
IC2
IC1
L1
L2
L3
L4
L5
L6
L7
L8
L9
IFT1
IFT2
IFT3
CF1
CF2
CF3
CF4
CF5
VR1
VR2
VR3
VR4
VR8
J1
J2
J4
J5
J6
J7
J8
D1
D2
D3
D8
D10
D12
D14
D16
D17
Z1

IC1	
1	0V
2	4.4V
3	8.0V
4	0.4V
5	0.9V
6	2.5V
7	5.0V
8	0V
9	2.8V
10	3.4V
11	1.7V
12	1.1V
13	5.0V
14	1.7V
15	8.0V
16	8.0V
17	3.5V
18	3.5V
19	0V
20	0V
21	2.5V
22	2.5V
23	3.2V
24	1.1V
25	2.5V
26	0.7V
27	4.7V
28	5.2V
29	8.0V
30	0V
31	7.4V
32	4.4V

	IC2	IC3
1	0V	0V
2	2.6V	5.0V
3	2.6V	1.2V
4	1.5V	3.4V
5	2.6V	5.0V
6	2.6V	5.0V
7	2.6V	2.5V
8	2.6V	2.5V
9	4.8V	2.9V
10	2.5V	5.0V
11	2.5V	5.0V
12	2.6V	0.7V
13	2.6V	1.0V
14	2.6V	1.1V
15	1.9V	1.5V
16	1.3V	5.0V
17	0V	0V
18	2.7V	5.0V
19	1.5V	3.2V
20	8.0V	4.1V
21	1.8V	4.3V
22	0V	4.3V
23	1.0V	4.3V
24	0.7V	3.8V
25	2.9V	0V
26	0V	0V
27	2.9V	0.7V
28	0V	1.9V
29	2.6V	1.9V
30	2.6V	3.0V
31	0V	3.0V
32	5.3V	3.0V

- This figure shows parts viewed from pattern side.
- Chip parts and component side shown in red.

CASSETTE CAR STEREO TAPE PLAYER w/LW/MW/UKW(FM)MPX ELECTRONIC TUNER RADIO

Mar., 1985

one of these figures, Fig. 4 of 5 that best suits stable installation of this unit. Also check the electrical connections by referring to this operating instructions. Mount the unit to the car's dashboard as shown in Fig. 2.

4. After installation reconnect the negative (–) battery terminal.

UNIT REMOVAL

Remove the unit with the help of both the dismounting brackets into holes provided on the left and right of the escutcheon and pushing them in until a distinctive clicking can be heard (lock springs unlocked).

Remove the unit with the help of both the dismounting brackets as shown in Fig. 3.

To Secure the Rear of the Unit

- **Using the Rear Support Strap** (See Fig. 4)
  Fix one end of the Rear Support Strap to the rear of the unit, and the other end to the Fire Wall of Car.
- **Using the Rubber Cushion** (See Fig. 5)
  If there is an existing Rear Support Bracket on the Fire Wall of Car, simply place the Rubber Cushion over the protruding bolt on the rear of the unit. Then mount the rear of the unit ot the existing Rear Support Bracket.

wobei sicher gestellt werden muß, daß das Gerät richtig mit der Spritzwand verbunden ist. Danach das Gerät gemäß Abb. 4 oder 5 einbauen. Die elektrischen Anschlüsse gemäß Bedienungsanleitung vornehmen. Die Befestigung des Geräts im Armaturenbrett gemäß Abb. 2 vornehmen.

4. Nach dem Einbau das Gerät wieder an die negative (–) Batterieklemme anschließen.

AUSBAU

Für den Ausbau des Geräts die Abbaukonsolen in dafür vorgesehene Löcher links und rechts der Zierplatte stecken und eindrücken, bis ein Klicken zu hören ist (Die Riegel sind entsperrt).

Das Gerät mit Hilfe der beiden Abbaukonsolen herausnehmen (Abb. 3).

Befestigung der Geräterückseite

- **Mittels Stützstrebe** (Siehe Abb. 4)
  Ein Ende der Stützstrebe an der Rückseite des Gerätes befestigen und das andere Ende an der Spritzwand anbringen.
- **Mittels Gummikissen** (Siehe Abb. 5)
  Falls bereits an der Spritzwand eine hintere Stützkonsole angebracht ist, einfach das Gummikissen an der, an der Geräterückseite überstehenden Schraube anbringen. Danach die Geräterückseite richtig an der vorhandenen Stützkonsole montieren.

Installation Parts List / Liste der Einbauteile

Illust. No. / Ref. Nr.	Description / Benennung	Parts No. / Maschinenteile Nr.	Q'ty / Stückzahl
A101	Rear Support Strap / Hintere Stützstrebe	YEFG04010A	1
A102	Dismounting Bracket (U-shaped) / Abbaukonsolen (U-förmig)	YEFX999440	2
A103	Rubber Cushion / Gummikissen	YEFS01174	1
A104	Hex. Bolt (5mmφ x 25mm) / Sechskantschraube (5mmφ x 25mm)	XVG5C25FXS	1
A105	Spring Washer (5mmφ) / Federscheibe (5mmφ)	XWA5BFX	2
A106	Plain Washer (5mmφ) / Unterlegescheibe (5mmφ)	XWG5FX	2
A107	Hex. Nut (5mmφ) / Sechskantmutter (5mmφ)	XNG5AFXS	2
A108	Toothed Lock Washer (5mmφ) / Gezahnte Sicherungsscheibe (5mmφ)	XWC5CFX	1
A109	Mounting Case / Einbaugehäuse	YEFX0211710	1

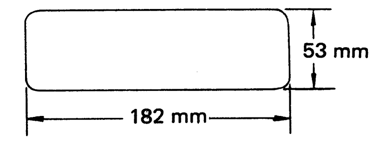


Fig. 1
Abb. 1

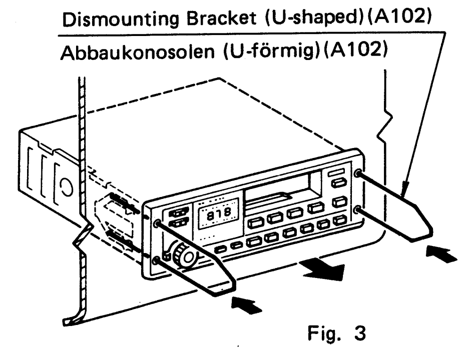

Dismounting Bracket (U-shaped)(A102)
Abbaukonosolen (U-förmig)(A102)

Fig. 3
Abb. 3

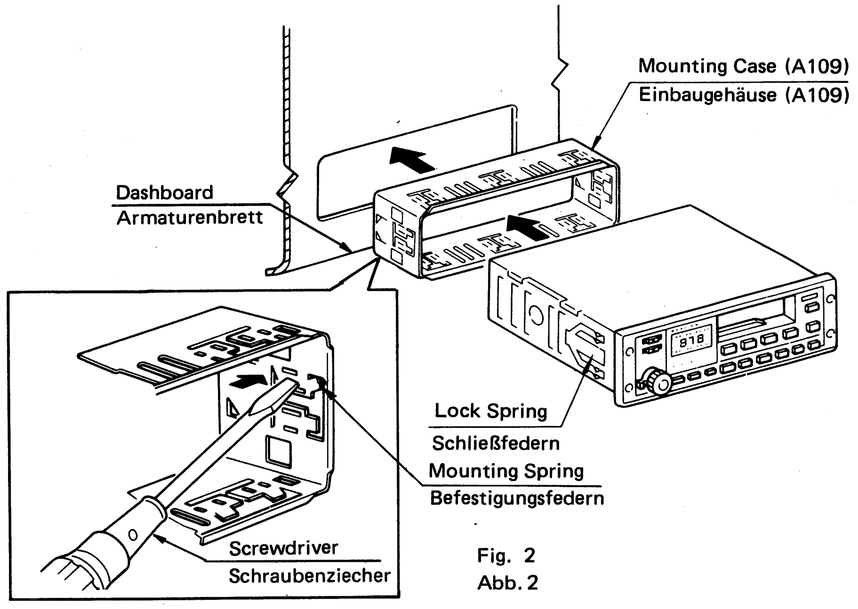

Mounting Case (A109)
Einbaugehäuse (A109)
Dashboard
Armaturenbrett
Lock Spring
Schließfedern
Mounting Spring
Befestigungsfedern
Screwdriver
Schraubenziecher

Fig. 2
Abb. 2

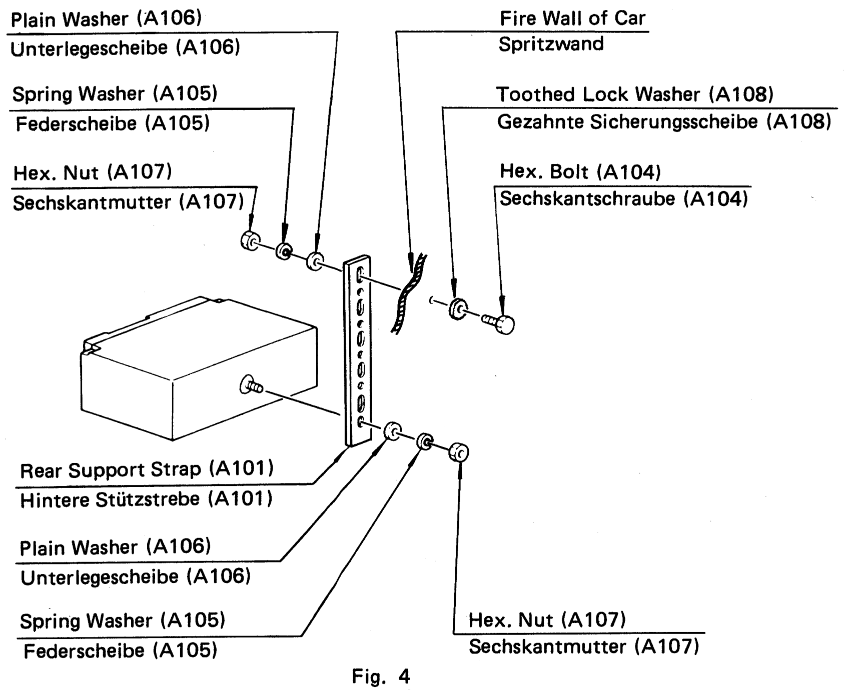

Plain Washer (A106)
Unterlegescheibe (A106)
Spring Washer (A105)
Federscheibe (A105)
Hex. Nut (A107)
Sechskantmutter (A107)
Fire Wall of Car
Spritzwand
Toothed Lock Washer (A108)
Gezahnte Sicherungsscheibe (A108)
Hex. Bolt (A104)
Sechskantschraube (A104)
Rear Support Strap (A101)
Hintere Stützstrebe (A101)
Plain Washer (A106)
Unterlegescheibe (A106)
Spring Washer (A105)
Federscheibe (A105)
Hex. Nut (A107)
Sechskantmutter (A107)

Fig. 4
Abb. 4

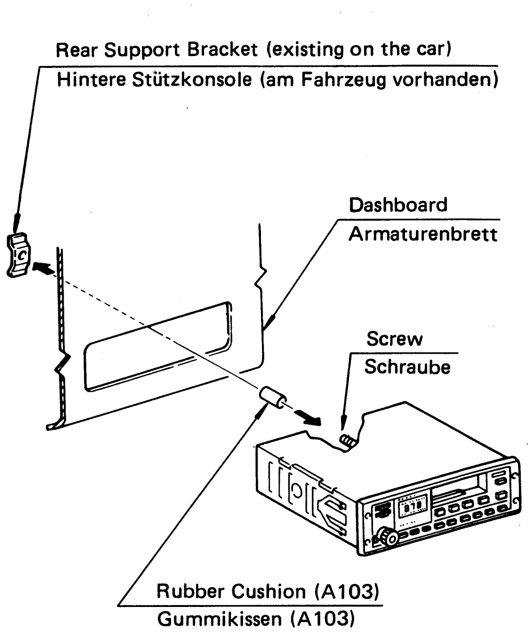
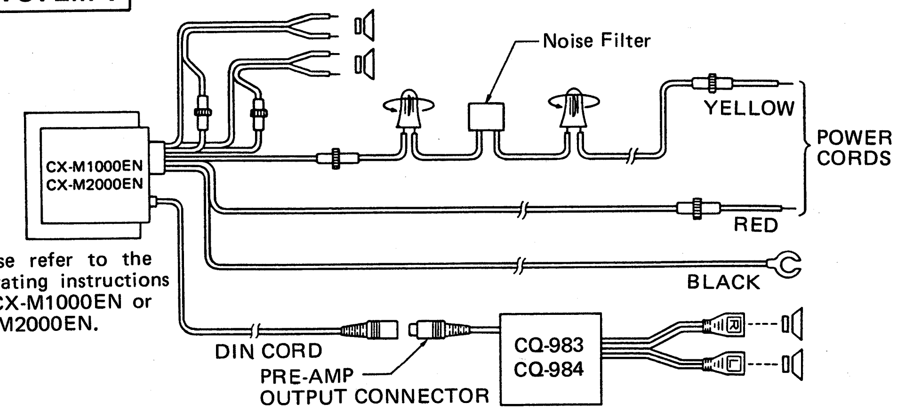

Rear Support Bracket (existing on the car)
Hintere Stützkonsole (am Fahrzeug vorhanden)
Dashboard
Armaturenbrett
Screw
Schraube
Rubber Cushion (A103)
Gummikissen (A103)

Fig. 5
Abb. 5

COMPOSITION/ZUSAMMENGESETZTER

(CQ-983EE/EG, CQ-984EG)

SYSTEM 1


Noise Filter
YELLOW
POWER CORDS
RED
BLACK
CX-M1000EN
CX-M2000EN
DIN CORD
PRE-AMP OUTPUT CONNECTOR
CQ-983
CQ-984

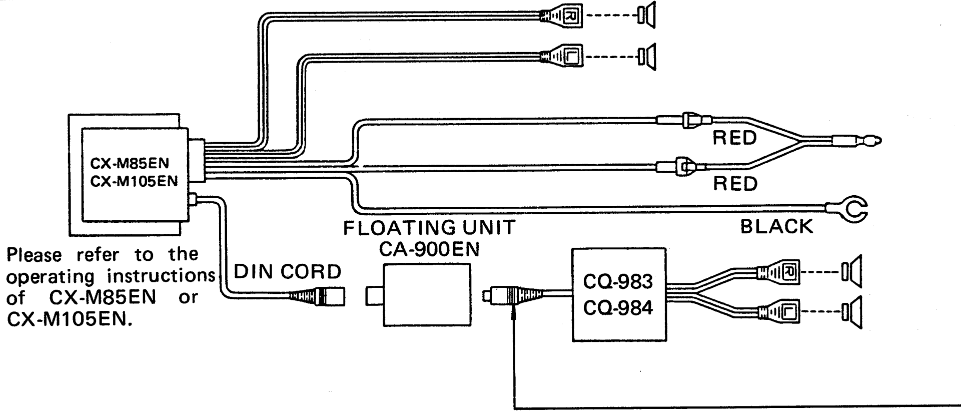
Please refer to the operating instructions of CX-M1000EN or CX-M2000EN.

Please strictly observe the following wiring connection when installing any of these power amplifiers, CX-M85EN, CX-M105EN, CX-M1000EN or CX-M2000EN to the stereo cassette deck/tuner, CQ-983 or CQ-984.

If in doubt, please consult your dealer.

CAUTION: The DIN CORD should not be in contact with any of the POWER CORDS (Yellow and Red). Make sure to keep them away from each other.

SYSTEM 2

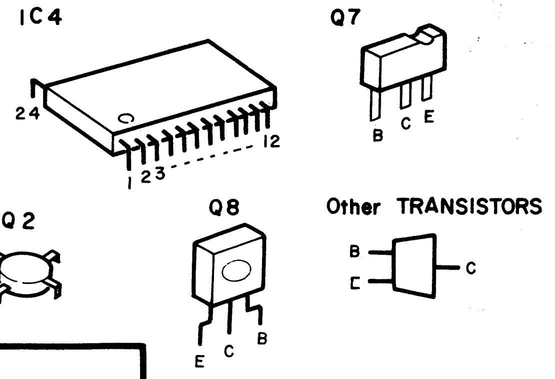

CX-M85EN
CX-M105EN
RED
RED
BLACK
FLOATING UNIT
CA-900EN
DIN CORD
CQ-983
CQ-984

Please refer to the operating instructions of CX-M85EN or CX-M105EN.

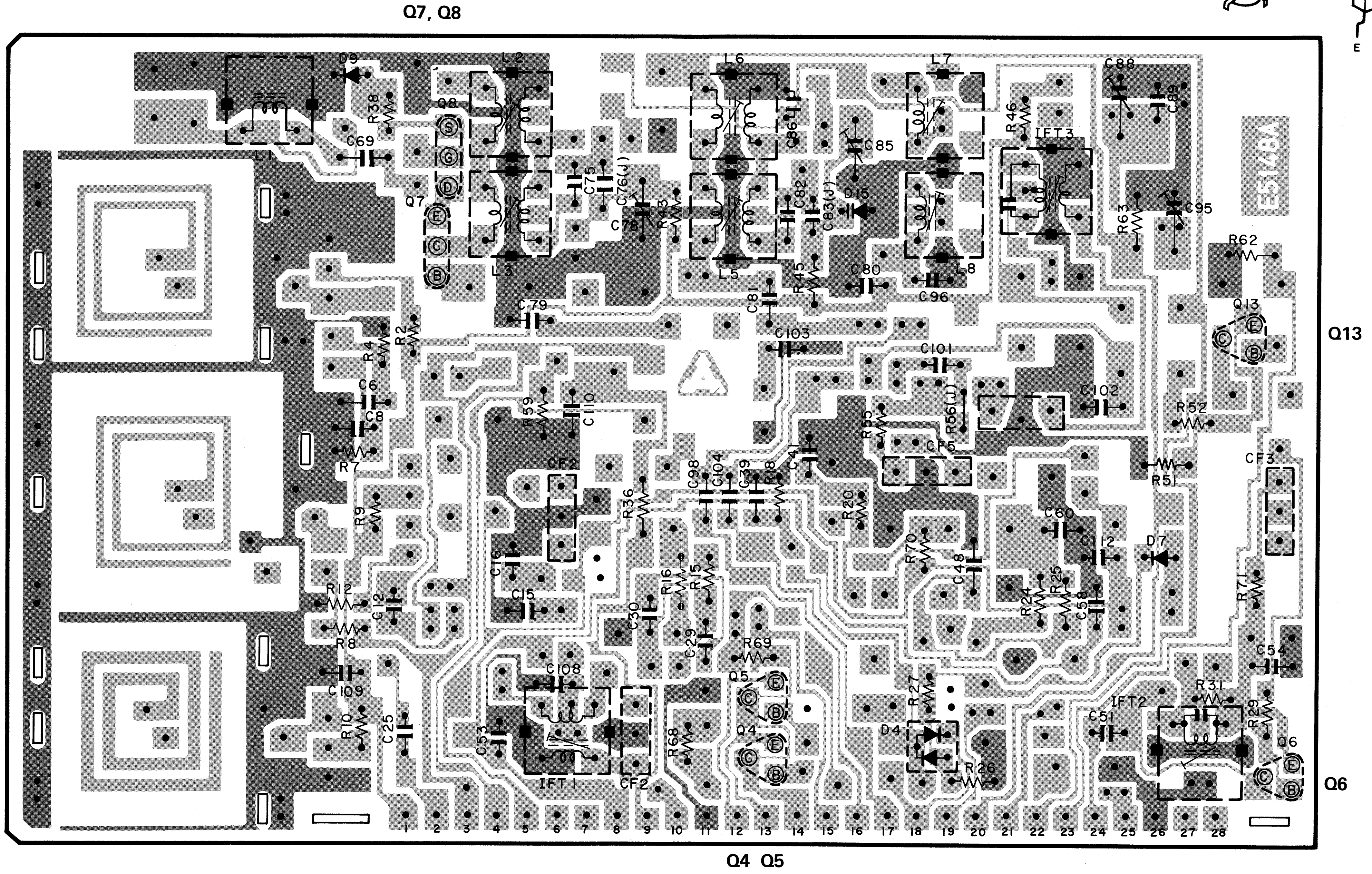
CAUTION: When installing the CX-M85EN or CX-M105EN to the PRE-AMP OUTPUT CONNECTOR of any of these models, CQ-983 of CQ-984, be sure to connect the Floating Unit (CA-900EN).

WIRING DIAGRAM MODEL CQ-983EE/EG, 984EG(RADIO BLOCK)

Q7		Q8	
B	3.3 V	D	2.7 V
C	8.0 V	G	3.6 V
E	2.7 V	S	0V


IC4
24
1 2 3
12
Q7
B C E
Q2
Q8
E C B
Other TRANSISTORS
B
E
C

Q13	
B	1.2 V
C	0.6V
E	0.6V


Q7, Q8
D9
L2
R38
Q8
S
G
D
L1
C69
Q7
E
C
B
L3
C75
C76(J)
C78
R43
L6
C86
C85
C82
C83(J)
D15
L5
R45
C81
C80
L7
C96
L8
R46
IFT3
C88
C89
R63
C95
E5148A
R62
Q13
E
C
B
C79
C103
C101
C102
R56(J)
R55
CF5
R52
R51
CF3
R4
R2
C6
C8
R7
R59
C110
CF2
C98
C104
C39
R18
C41
R20
R36
R9
C16
C15
R16
R15
C60
C112
D7
R70
C48
R24
R25
C58
R71
R12
C12
R8
C30
C29
R69
C109
C108
Q5
E
C
B
Q4
E
C
B
R27
D4
R26
C54
R31
IFT2
C51
R29
Q6
E
C
B
R10
C25
C53
IFT1
CF2
R68
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
Q13
Q6
Q4 Q5

- This figure the view as viewed from pattarn side.
- Chip parts and component side shown in red.

Q4		Q5	
B	2.9 V	B	2.9 V
C	4.9 V	C	4.9 V
E	2.4 V	E	2.4 V

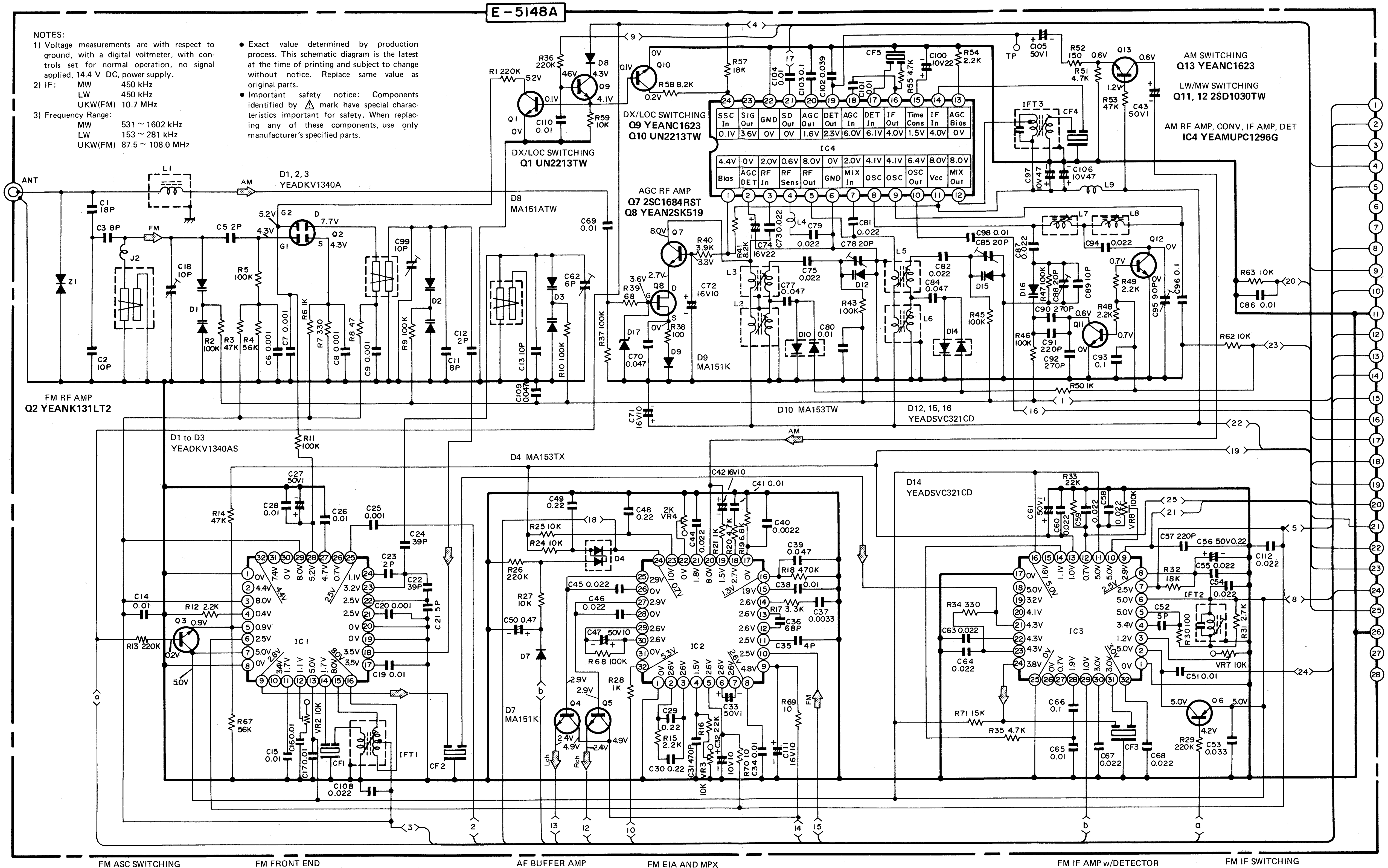
Q6	
B	4.2 V
C	5.0V
E	5.0V

SCHEMATIC DIAGRAM MODEL CQ-983EE/EG, 984EG(RADIO BLOCK)

NOTES:

1) Voltage measurements are with respect to ground, with a digital voltmeter, with controls set for normal operation, no signal applied, 14.4 V DC, power supply.
2) IF: MW 450 kHz
   LW 450 kHz
   UKW(FM) 10.7 MHz
3) Frequency Range:
   MW 531 ~ 1602 kHz
   LW 153 ~ 281 kHz
   UKW(FM) 87.5 ~ 108.0 MHz

- Exact value determined by production process. This schematic diagram is the latest at the time of printing and subject to change without notice. Replace same value as original parts.
- Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.


E-5148A
ANT
L1
AM
FM
D1, 2, 3
YEADKV1340A
DX/LOC SWITCHING
Q1 UN2213TW
D8
MA151ATW
DX/LOC SWITCHING
Q9 YEANC1623
Q10 UN2213TW
AGC RF AMP
Q7 2SC1684RST
Q8 YEAN2SK519
D9
MA151K
IC4
SSC In
SIG Out
GND
SD Out
AGC Out
DET Out
AGC In
DET In
IF Out
Time Cons
IF In
AGC Bias
Bias
AGC DET
RF In
RF Sens
RF Out
MIX In
OSC
OSC Out
Vcc
MIX Out
CF5
IFT3
CF4
TP
AM SWITCHING
Q13 YEANC1623
LW/MW SWITCHING
Q11, 12 2SD1030TW
AM RF AMP, CONV, IF AMP, DET
IC4 YEAMUPC1296G
L3
L4
L5
L6
L7
L8
L9
D10 MA153TW
D12, 15, 16
YEADSVC321CD
FM RF AMP
Q2 YEANK131LT2
D1 to D3
YEADKV1340AS
D4 MA153TX
D7
MA151K
D14
YEADSVC321CD
IC1
IC2
IC3
IFT1
IFT2
CF1
CF2
CF3
VR2 10K
VR3
VR4
VR7 10K
VR8
Lch
Rch
FM
AM

Name	Voltage
VAR	3.0V
FM OSC	0V
FM Vcc	8V
SSC	0.2V
V. REF	2.5V
MIX	0V
IF	0V
FM Vcc	5V
DX/LOC	0V
ST. IND	0V
GND	0V
Rch OUT	2.4V
Lch OUT	2.4V
Vcc 5V	5.0V
PNL IN	2.5V
AM OSC	0V
AM IF OUT	0V
FM MONO	0.7V
FM CONT	1.0V
LW CONT	0V
FM DET OUT	2.9V
AM Vcc	0V (8V)
MW CONT	0V
FM IF OUT	0V
FM SD OUT	0.7V
GND	0V
AM DET OUT	0V
AM AMP IN	0V

This Voltage is at FM.

FM ASC SWITCHING
Q3 YEANC1623

FM FRONT END
IC1 AN7264C

AF BUFFER AMP
Q4, 5 YEANC1623

FM EIA AND MPX
IC2 AN7466C

FM IF AMP w/DETECTOR
IC3 AN7268C

FM IF SWITCHING
Q6 YEANA812

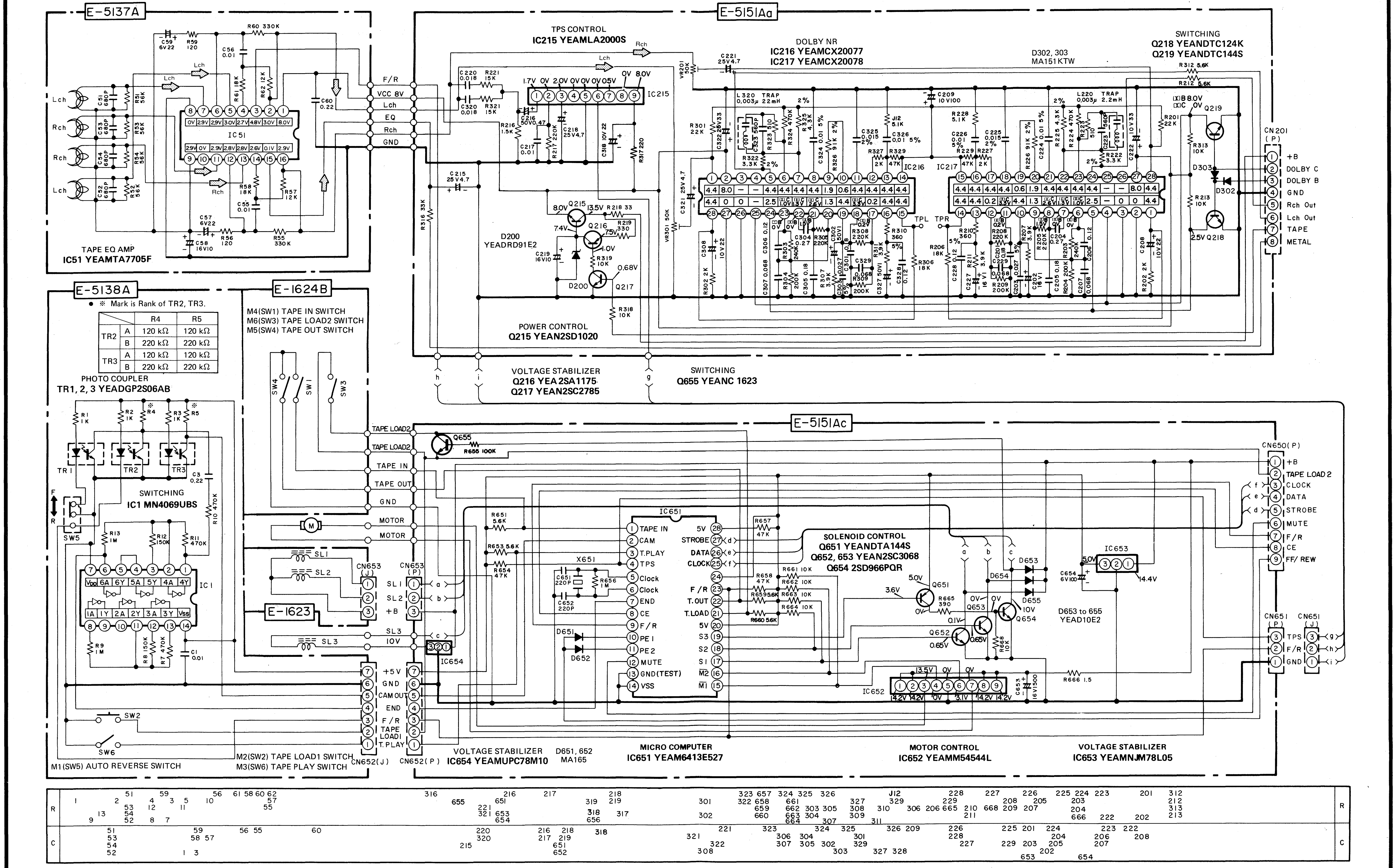
R 13 12 2 3 14 67 5 4 11 6 7 8 9 1 26 27 25 24 36 10 59 37 68 39 28 58 38 15 40 16 21 57 41 20 19 70 18 17 69 43 55 54 34 71 45 35 46 47 50 33 52 51 49 53 48 32 30 29 62 31 63 R

C 1 2 3 14 5 6 7 28 15 27 16 17 26 8 9 108 25 23 20 19 24 22 21 11 12 50 13 109 110 49 69 47 48 45 46 70 71 29 30 72 44 31 42 32 41 33 74 73 40 34 35 111 77 75 104 39 38 36 103 37 79 102 80 81 101 100 84 82 63 64 98 87 105 90 61 91 97 60 92 106 66 65 89 59 67 94 93 58 68 43 52 96 57 51 56 55 54 53 86 112 C

Mar., 1985

CASSETTE CAR STEREO TAPE PLAYER w/LW/MW/UKW(FM)MPX ELECTRONIC TUNER RADIO

SCHEMATIC DIAGRAM MODEL CQ-983EE/EG(TAPE BLOCK)


E-5137A
TAPE EQ AMP
IC51 YEAMTA7705F
E-5151Aa
TPS CONTROL
IC215 YEAMLA2000S
DOLBY NR
IC216 YEAMCX20077
IC217 YEAMCX20078
D302, 303
MA151KTW
SWITCHING
Q218 YEANDTC124K
Q219 YEANDTC144S
D200
YEADRD91E2
POWER CONTROL
Q215 YEAN2SD1020
VOLTAGE STABILIZER
Q216 YEA2SA1175
Q217 YEAN2SC2785
SWITCHING
Q655 YEANC 1623
CN201 (P)
+B
DOLBY C
DOLBY B
GND
Rch Out
Lch Out
TAPE
METAL
F/R
VCC 8V
Lch
EQ
Rch
GND
E-5138A
PHOTO COUPLER
TR1, 2, 3 YEADGP2S06AB
SWITCHING
IC1 MN4069UBS
E-1624B
M4(SW1) TAPE IN SWITCH
M6(SW3) TAPE LOAD2 SWITCH
M5(SW4) TAPE OUT SWITCH
TAPE LOAD2
TAPE LOAD2
TAPE IN
TAPE OUT
GND
MOTOR
MOTOR
E-1623
CN653 (J)
CN653 (P)
SL1
SL2
+B
SL3
10V
+5V
GND
CAM OUT
END
F/R
TAPE LOAD1
T.PLAY
CN652(J)
CN652(P)
SW2
SW5
SW6
M1(SW5) AUTO REVERSE SWITCH
M2(SW2) TAPE LOAD1 SWITCH
M3(SW6) TAPE PLAY SWITCH
E-5151Ac
IC651
TAPE IN
CAM
T.PLAY
TPS
Clock
Clock
END
CE
F/R
PE1
PE2
MUTE
GND(TEST)
VSS
5V
STROBE
DATA
CLOCK
F/R
T.OUT
T.LOAD
5V
S3
S2
S1
M2
M1
SOLENOID CONTROL
Q651 YEANDTA144S
Q652, 653 YEAN2SC3068
Q654 2SD966PQR
IC653
D653 to 655
YEAD10E2
IC652
IC654
CN650(P)
+B
TAPE LOAD 2
CLOCK
DATA
STROBE
MUTE
F/R
CE
FF/ REW
CN651 (P)
CN651 (J)
TPS
F/R
GND
VOLTAGE STABILIZER
IC654 YEAMUPC78M10
D651, 652
MA165
MICRO COMPUTER
IC651 YEAM6413E527
MOTOR CONTROL
IC652 YEAMM54544L
VOLTAGE STABILIZER
IC653 YEAMNJM78L05

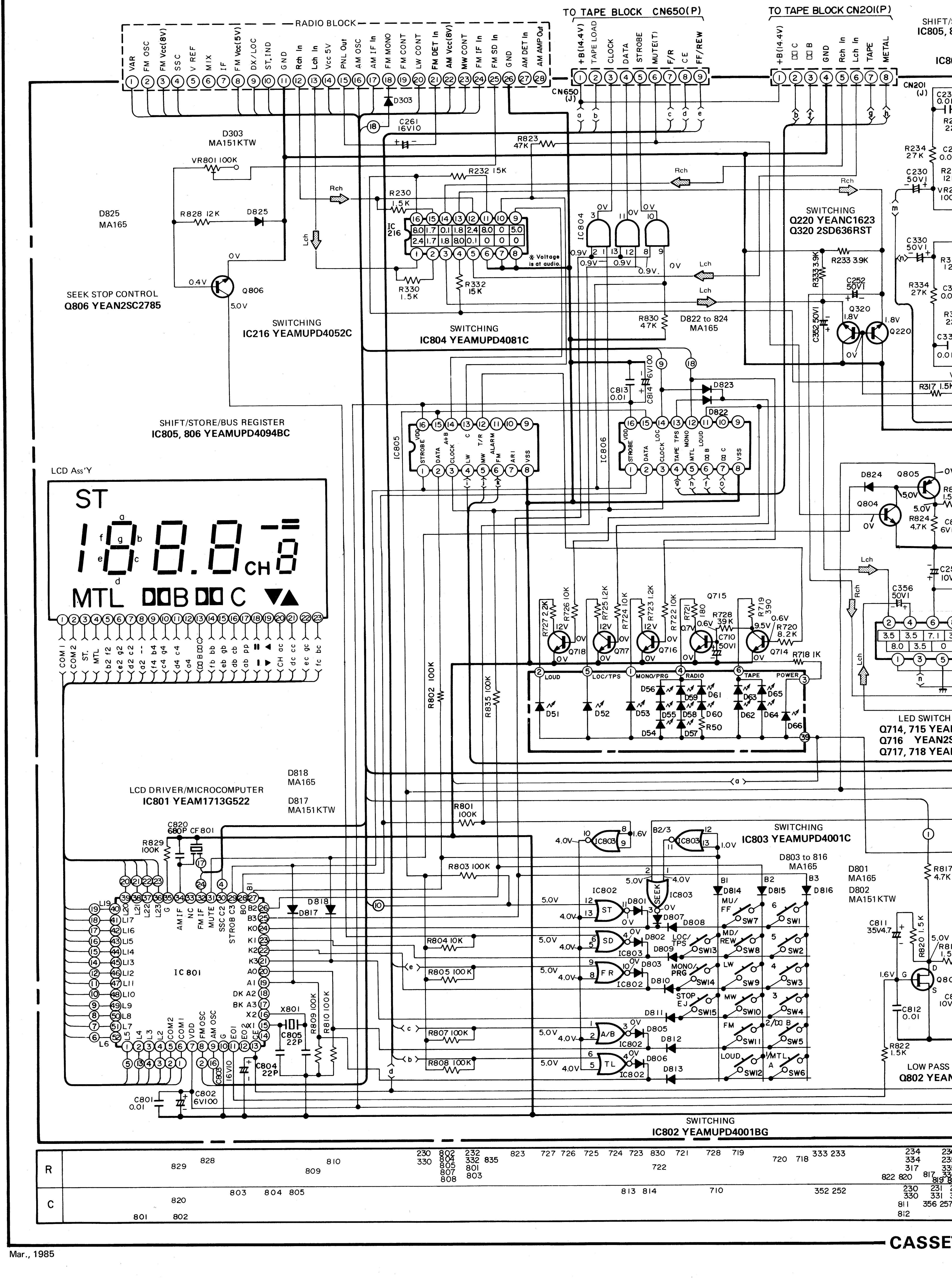
● ※ Mark is Rank of TR2, TR3.

		R4	R5
TR2	A	120 kΩ	120 kΩ
	B	220 kΩ	220 kΩ
TR3	A	120 kΩ	120 kΩ
	B	220 kΩ	220 kΩ

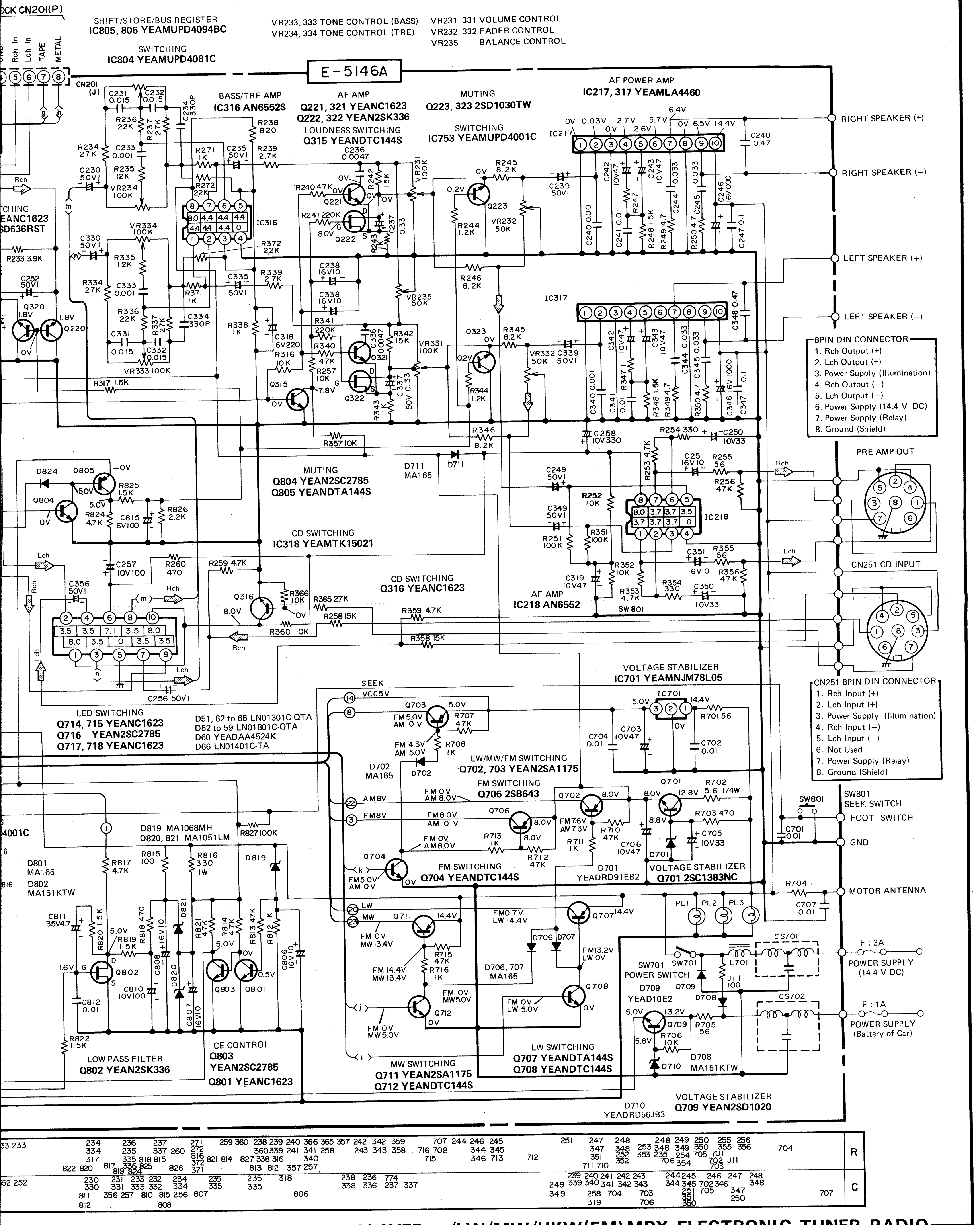
CASSETTE CAR STEREO TAPE PLAYER w/LW/MW/UKW(FM) MPX ELECTRONIC TUNER RADIO

Mar., 1985

SCHEMATIC DIAGRAM MODEL CQ-983EE/EG(CONTROL AND AUDIO BLOCK)


RADIO BLOCK
VAR
FM OSC
FM Vcc(8V)
SSC
V REF
MIX
IF
FM Vcc(5V)
DX/LOC
ST, IND
GND
Rch In
Lch In
Vcc 5V
PNL Out
AM OSC
AM IF In
FM MONO
FM CONT
LW CONT
FM DET In
AM Vcc(8V)
MW CONT
FM IF In
FM SD In
GND
AM DET In
AM AMP Out
TO TAPE BLOCK CN650(P)
+B(14.4V)
TAPE LOAD
CLOCK
DATA
STROBE
MUTE(T)
F/R
CE
FF/REW
CN650 (J)
TO TAPE BLOCK CN201(P)
+B(14.4V)
ᗡᗡ C
ᗡᗡ B
GND
Rch In
Lch In
TAPE
METAL
CN201 (J)
SHIFT/S
IC805, 8
D303
MA151KTW
VR801 100K
D825
MA165
R828 12K
SEEK STOP CONTROL
Q806 YEAN2SC2785
C261 16V10
R823 47K
R232 15K
R230 1.5K
IC 216
※ Voltage is at audio.
R330 1.5K
R332 15K
SWITCHING
IC216 YEAMUPD4052C
IC804
SWITCHING
IC804 YEAMUPD4081C
R830 47K
D822 to 824
MA165
SWITCHING
Q220 YEANC1623
Q320 2SD636RST
R233 3.9K
R333 3.9K
C252 50V1
C352 50V1
Q320
Q220
R234 27K
C230 50V1
C330 50V1
R334 27K
R317 1.5K
SHIFT/STORE/BUS REGISTER
IC805, 806 YEAMUPD4094BC
IC805
STROBE
DATA
CLOCK
LW
MW
FM
ARI
VSS
VDD
A+B
C
T/R
ALARM
C813 0.01
C814 6V100
D823
D822
IC806
LOC
TAPE
TPS
MONO
MTL
LOUD
ᗡᗡ B
ᗡᗡ C
LCD Ass'Y
ST
MTL ᗡᗡB ᗡᗡC
CH
COM 1
COM 2
ST.
MTL
b2 f2
e2 g2
d2 c2
a2 --
f4 b4
c4 g4
d4 c4
d4
ᗡᗡ B ᗡᗡ C
fb bb
eb gb
db cb
ab pp
CH ac
dc cc
ec gc
fc bc
D824
Q805
Q804
R824 4.7K
C356 50V1
R802 100K
R835 100K
R727 2.2K
R726 10K
R725 1.2K
R724 10K
R723 1.2K
R722 10K
R721 180
R728 39K
C710 50V1
R719 390
R720 8.2K
R718 1K
Q718
Q717
Q716
Q715
Q714
LOUD
LOC/TPS
MONO/PRG
RADIO
TAPE
POWER
D51
D52
D53
D54
D55
D56
D57
D58
D59
D60
D61
D62
D63
D64
D65
D66
R50
LED SWITCH
Q714, 715 YEA
Q716 YEAN2
Q717, 718 YEA
D818
MA165
D817
MA151KTW
LCD DRIVER/MICROCOMPUTER
IC801 YEAM1713G522
R801 100K
C820 680P
CF801
R829 100K
IC 801
AM IF
NC
FM IF
MUTE
SSC C2
STROB C3
COM2
COM1
VDD
FM OSC
AM OSC
EO1
EO2
CE
X801
C805 22P
C804 22P
R809 100K
R810 100K
C801 0.01
C802 6V100
C803 16V10
R803 100K
R804 10K
R805 100K
R807 100K
R808 100K
IC803
SWITCHING
IC803 YEAMUPD4001C
D803 to 816
MA165
D801
MA165
D802
MA151KTW
IC802
ST
SD
FR
A/B
TL
SEEK
MU/FF
MD/REW
LOC/TPS
MONO/PRG
STOP EJ
LW
MW
FM
LOUD
2/ᗡᗡ B
1/MTL A
SW1
SW2
SW3
SW4
SW5
SW6
SW7
SW8
SW9
SW10
SW11
SW12
SW13
SW14
SW15
R817 4.7K
C811 35V4.7
R820 1.5K
C812 0.01
R822 1.5K
LOW PASS
Q802 YEA
SWITCHING
IC802 YEAMUPD4001BG
R
C
CASSET

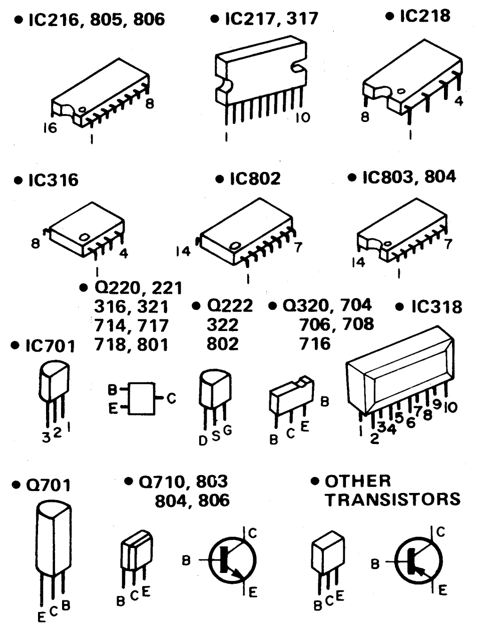
Mar., 1985

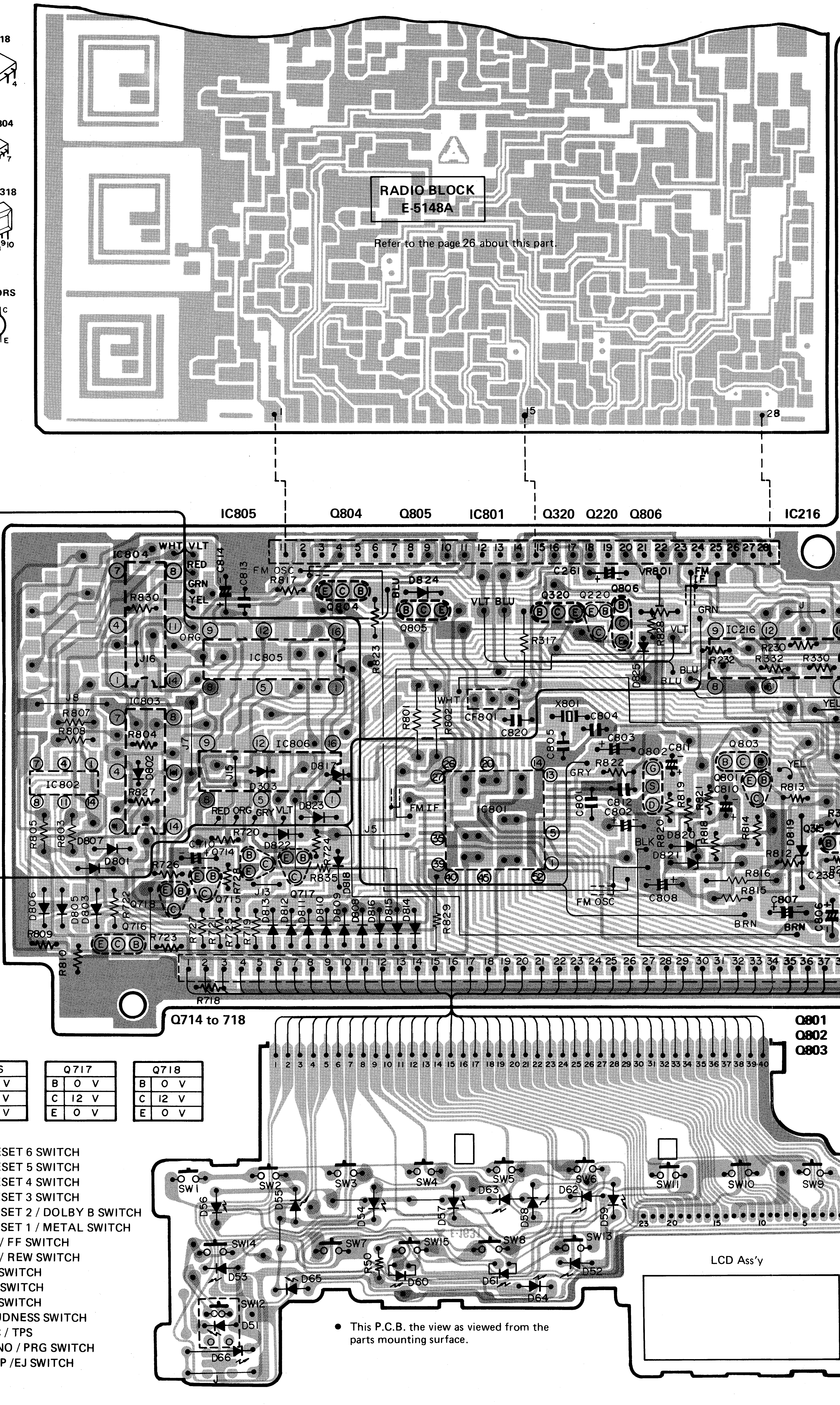

CN201(P)
Rch In
Lch In
TAPE
METAL
CN201 (J)
SHIFT/STORE/BUS REGISTER
IC805, 806 YEAMUPD4094BC
SWITCHING
IC804 YEAMUPD4081C
VR233, 333 TONE CONTROL (BASS)
VR234, 334 TONE CONTROL (TRE)
VR231, 331 VOLUME CONTROL
VR232, 332 FADER CONTROL
VR235 BALANCE CONTROL
E-5146A
BASS/TRE AMP
IC316 AN6552S
AF AMP
Q221, 321 YEANC1623
Q222, 322 YEAN2SK336
LOUDNESS SWITCHING
Q315 YEANDTC144S
MUTING
Q223, 323 2SD1030TW
SWITCHING
IC753 YEAMUPD4001C
AF POWER AMP
IC217, 317 YEAMLA4460
RIGHT SPEAKER (+)
RIGHT SPEAKER (–)
LEFT SPEAKER (+)
LEFT SPEAKER (–)
8PIN DIN CONNECTOR
1. Rch Output (+)
2. Lch Output (+)
3. Power Supply (Illumination)
4. Rch Output (–)
5. Lch Output (–)
6. Power Supply (14.4 V DC)
7. Power Supply (Relay)
8. Ground (Shield)
PRE AMP OUT
CN251 CD INPUT
CN251 8PIN DIN CONNECTOR
1. Rch Input (+)
2. Lch Input (+)
3. Power Supply (Illumination)
4. Rch Input (–)
5. Lch Input (–)
6. Not Used
7. Power Supply (Relay)
8. Ground (Shield)
MUTING
Q804 YEAN2SC2785
Q805 YEANDTA144S
CD SWITCHING
IC318 YEAMTK15021
CD SWITCHING
Q316 YEANC1623
AF AMP
IC218 AN6552
SW801
D711 MA165
LED SWITCHING
Q714, 715 YEANC1623
Q716 YEAN2SC2785
Q717, 718 YEANC1623
D51, 62 to 65 LN01301C-QTA
D52 to 59 LN01801C-QTA
D60 YEADAA4524K
D66 LN01401C-TA
SEEK
VCC5V
VOLTAGE STABILIZER
IC701 YEAMNJM78L05
LW/MW/FM SWITCHING
Q702, 703 YEAN2SA1175
FM SWITCHING
Q706 2SB643
D702 MA165
FM SWITCHING
Q704 YEANDTC144S
D701 YEADRD91EB2
VOLTAGE STABILIZER
Q701 2SC1383NC
SW801
SEEK SWITCH
FOOT SWITCH
GND
MOTOR ANTENNA
F : 3A
POWER SUPPLY (14.4 V DC)
F : 1A
POWER SUPPLY (Battery of Car)
SW701 POWER SWITCH
D709 YEAD10E2
D708 MA151KTW
D710 YEADRD56JB3
VOLTAGE STABILIZER
Q709 YEAN2SD1020
LW SWITCHING
Q707 YEANDTA144S
Q708 YEANDTC144S
MW SWITCHING
Q711 YEAN2SA1175
Q712 YEANDTC144S
D706, 707 MA165
D819 MA1068MH
D820, 821 MA1051LM
D801 MA165
D802 MA151KTW
LOW PASS FILTER
Q802 YEAN2SK336
CE CONTROL
Q803 YEAN2SC2785
Q801 YEANC1623
R
C

CASSETTE CAR STEREO TAPE PLAYER w/LW/MW/UKW(FM)MPX ELECTRONIC TUNER RADIO

WIRING DIAGRAM MODEL CQ-983EE/EG(CONTROL AND AUDIO BLOCK)

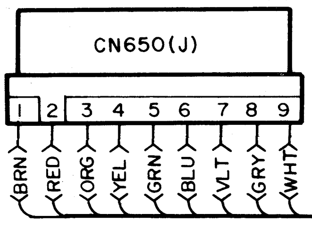
■ ICs & TRANSISTORS


• IC216, 805, 806
• IC217, 317
• IC218
• IC316
• IC802
• IC803, 804
• Q220, 221 316, 321 714, 717 718, 801
• Q222 322 802
• Q320, 704 706, 708 716
• IC318
• IC701
• Q701
• Q710, 803 804, 806
• OTHER TRANSISTORS
B
C
E
D
S
G


RADIO BLOCK
E-5148A
Refer to the page 26 about this part.
IC805
Q804
Q805
IC801
Q320
Q220
Q806
IC216
IC804
IC802
IC803
Q714 to 718
Q801
Q802
Q803
WHT
VLT
RED
GRN
YEL
ORG
BLU
GRY
BLK
BRN
FM OSC
FM IF
J5
J7
J8
J13
J15
J16
D801
D802
D803
D805
D806
D807
D808
D809
D810
D811
D812
D813
D814
D815
D816
D817
D818
D819
D820
D821
D822
D823
D824
D825
D303
R317
R232
R230
R330
R332
R718
R719
R720
R722
R723
R724
R725
R726
R727
R728
R801
R802
R803
R804
R805
R807
R808
R809
R810
R812
R813
R814
R815
R816
R817
R818
R819
R820
R821
R822
R823
R827
R828
R829
R830
R835
R50
C261
C238
C710
C801
C802
C803
C804
C805
C806
C807
C808
C810
C811
C812
C813
C814
C820
CF801
X801
VR801
Q714
Q715
Q716
Q717
Q718
SW1
SW2
SW3
SW4
SW5
SW6
SW7
SW8
SW9
SW10
SW11
SW12
SW13
SW14
SW15
D51
D52
D53
D54
D55
D56
D57
D58
D59
D60
D61
D62
D63
D64
D65
D66
LCD Ass'y

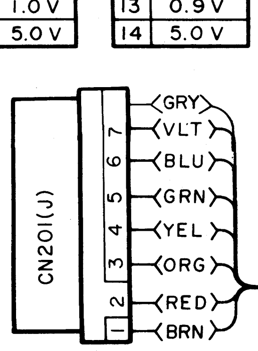
• This P.C.B. the view as viewed from the parts mounting surface.

To TAPE BLOCK CN650(P)


CN650(J)
1
2
3
4
5
6
7
8
9
BRN
RED
ORG
YEL
GRN
BLU
VLT
GRY
WHT

IC803	
1	4.0V
2	5.0V
3	0 V
4	0 V
5	4.0V
6	5.0V
7	0 V
8	1.6V
9	1.6V
10	4.0V
11	4.0V
12	1.0V
13	1.0V
14	5.0V

IC804	
1	0.9 V
2	0.9 V
3	0 V
4	0 V
5	0 V
6	0 V
7	0 V
8	0.9 V
9	0 V
10	0 V
11	0 V
12	0.9 V
13	0.9 V
14	5.0 V


CN201(J)
1
2
3
4
5
6
7
GRY
VLT
BLU
GRN
YEL
ORG
RED
BRN

To TAPE BLOCK CN201(P)

IC802			
1	5.0V	8	4.0 V
2	4.0V	9	5.0 V
3	0 V	10	0 V
4	0 V	11	0 V
5	4.0V	12	5.0 V
6	5.0V	13	4.0 V
7	0 V	14	5.0 V

Q714	
B	0.6 V
C	9.5V
E	0 V

Q715	
B	0.6 V
C	0.7 V
E	0 V

Q716	
B	0 V
C	12 V
E	0 V

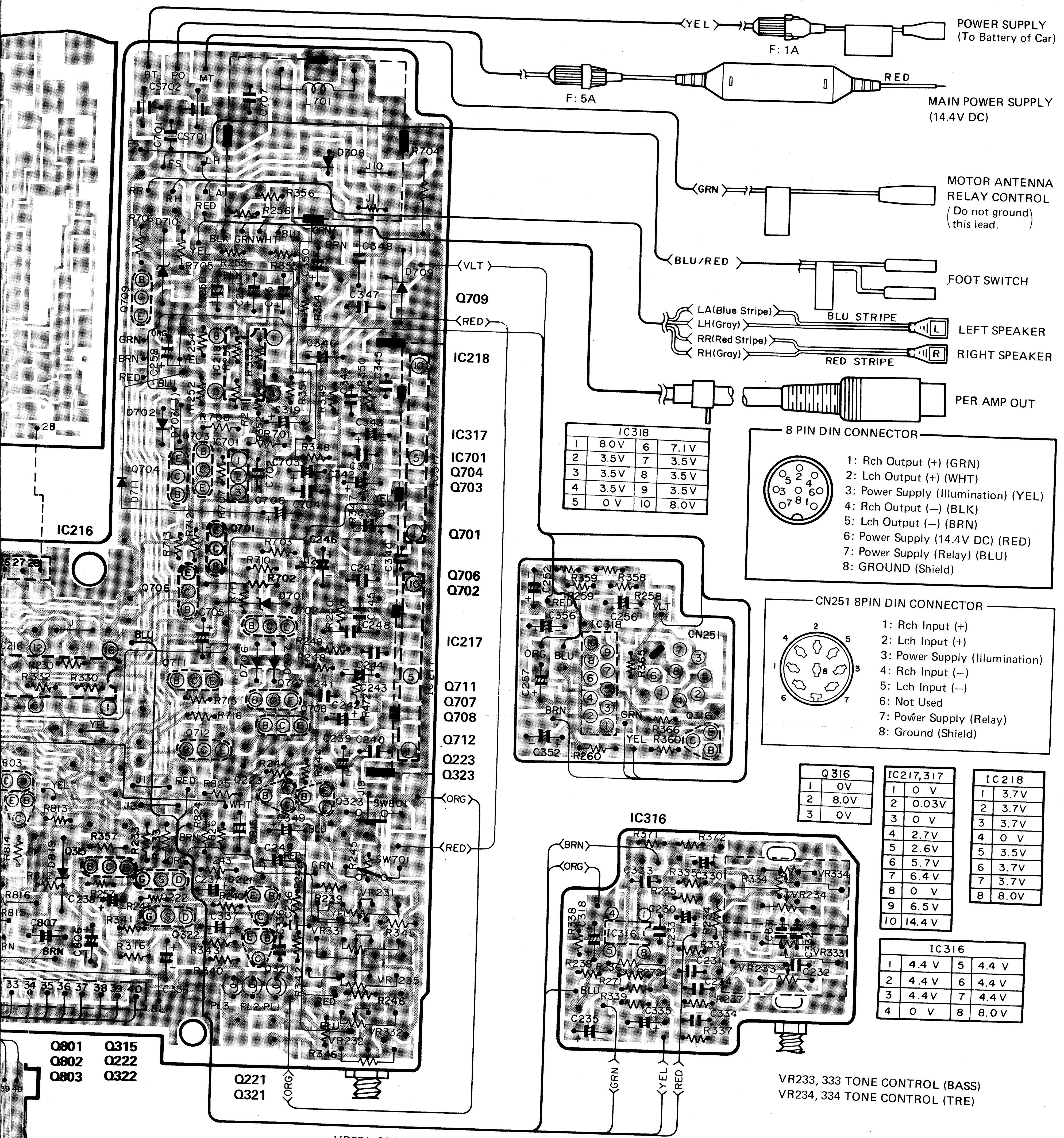
Q717	
B	0 V
C	12 V
E	0 V

Q718	
B	0 V
C	12 V
E	0 V

Q804	
B	0 V
C	5.0V
E	0 V
Q805	
B	5.0 V
C	5.0 V
E	0 V
Q806	
B	0.4V
C	5.0 V
E	0 V

SW1	PRESET 6 SWITCH
SW2	PRESET 5 SWITCH
SW3	PRESET 4 SWITCH
SW4	PRESET 3 SWITCH
SW5	PRESET 2 / DOLBY B SWITCH
SW6	PRESET 1 / METAL SWITCH
SW7	MU / FF SWITCH
SW8	MD / REW SWITCH
SW9	LW SWITCH
SW10	MW SWITCH
SW11	FM SWITCH
SW12	LOUDNESS SWITCH
SW13	LOC / TPS
SW14	MONO / PRG SWITCH
SW15	STOP /EJ SWITCH

CASSET


POWER SUPPLY (To Battery of Car)
F: 1A
YEL
RED
F: 5A
MAIN POWER SUPPLY (14.4V DC)
GRN
MOTOR ANTENNA RELAY CONTROL (Do not ground this lead.)
BLU/RED
FOOT SWITCH
LA(Blue Stripe)
LH(Gray)
RR(Red Stripe)
RH(Gray)
BLU STRIPE
RED STRIPE
L
R
LEFT SPEAKER
RIGHT SPEAKER
PER AMP OUT
VLT
Q709
IC218
IC317
IC701
Q704
Q703
Q701
Q706
Q702
IC217
Q711
Q707
Q708
Q712
Q223
Q323
ORG
IC216
IC316
CN251
IC318
Q316
BRN
Q801
Q802
Q803
Q315
Q222
Q322
Q221
Q321
SW9
BT
PO
MT
L701
C707
SW701
SW801
VR231
VR232
VR235
VR331
VR332
VR233
VR234
VR333
VR334

IC318			
1	8.0V	6	7.1V
2	3.5V	7	3.5V
3	3.5V	8	3.5V
4	3.5V	9	3.5V
5	0 V	10	8.0V

8 PIN DIN CONNECTOR

1: Rch Output (+) (GRN)
2: Lch Output (+) (WHT)
3: Power Supply (Illumination) (YEL)
4: Rch Output (–) (BLK)
5: Lch Output (–) (BRN)
6: Power Supply (14.4V DC) (RED)
7: Power Supply (Relay) (BLU)
8: GROUND (Shield)

CN251 8PIN DIN CONNECTOR

1: Rch Input (+)
2: Lch Input (+)
3: Power Supply (Illumination)
4: Rch Input (–)
5: Lch Input (–)
6: Not Used
7: Power Supply (Relay)
8: Ground (Shield)

Q316	
1	0V
2	8.0V
3	0V

IC217, 317	
1	0 V
2	0.03V
3	0 V
4	2.7V
5	2.6V
6	5.7V
7	6.4V
8	0 V
9	6.5V
10	14.4V

IC218	
1	3.7V
2	3.7V
3	3.7V
4	0 V
5	3.5V
6	3.7V
7	3.7V
8	8.0V

IC316			
1	4.4 V	5	4.4 V
2	4.4 V	6	4.4 V
3	4.4 V	7	4.4 V
4	0 V	8	8.0 V

VR233, 333 TONE CONTROL (BASS)
VR234, 334 TONE CONTROL (TRE)

VR231, 331 VOLUME CONTROL
VR232, 332 FADER CONTROL
VR235 BALANCE CONTROL
SW701 POWER SWITCH
SW801 SEEK SWITCH

- Chip and component part are shown in red.

IC216	RADIO	TAPE
1	2.4V	2.6V
2	1.7V	2.6V
3	1.8V	1.1V
4	8.0V	8.0V
5	0.1V	1.2V
6	0V	0V
7	0V	0V
8	0V	0V
9	5.0V	0V
10	0V	5.0V
11	8.0V	8.0V
12	2.4V	2.6V
13	1.8V	1.1V
14	0.1V	1.2V
15	1.0V	2.6V
16	8.0V	8.0V

Q220	
B	0 V
C	0 V
E	1.8 V

Q320	
B	0 V
C	0 V
E	1.8 V

Q221	
B	0 V
C	0 V
E	0 V

Q321	
B	0 V
C	0 V
E	0 V

Q222	
D	0 V
G	8.0 V
S	0 V

Q322	
D	0 V
G	8.0 V
S	0 V

Q223	
B	0.2 V
C	0 V
E	0 V

Q323	
B	0.2 V
C	0 V
E	0 V

Q315	
B	0 V
C	7.8 V
E	0 V

Q801	
B	0.5 V
C	0 V
E	0 V

Q802	
D	5.0 V
G	1.6 V
S	0 V

Q803	
B	0 V
C	5.0 V
E	0 V

Q701	
B	8.8 V
C	12.8 V
E	8.0 V

Q702	
B	FM 7.6V AM 7.3V
C	FM 0V AM 8.0V
E	8.0 V

Q703	
B	FM 4.3V AM 5.0V
C	FM 5.0V AM 0V
E	5.0 V

Q704	
B	FM 5.0V LW 0V
C	FM 0V LW 8.0V
E	0 V

Q706	
B	8.0V
C	FM 8.0V LW 0 V
E	8.0 V

Q707	
B	FM 13.2V LW 0 V
C	FM 0.7V LW 14.4V
E	14.4 V

Q708	
B	FM 0V LW 5.0V
C	FM 13.2V LW 0V
E	0 V

Q709	
B	5.8 V
C	13.2 V
E	5.0 V

Q711	
B	FM 14.4V MW 13.4V
C	FM 0V MW 13.4V
E	14.4 V

Q712	
B	FM 0V MW 5.0V
C	FM 0V MW 5.0V
E	0 V

Q223	
B	0.2 V
C	0 V
E	0 V

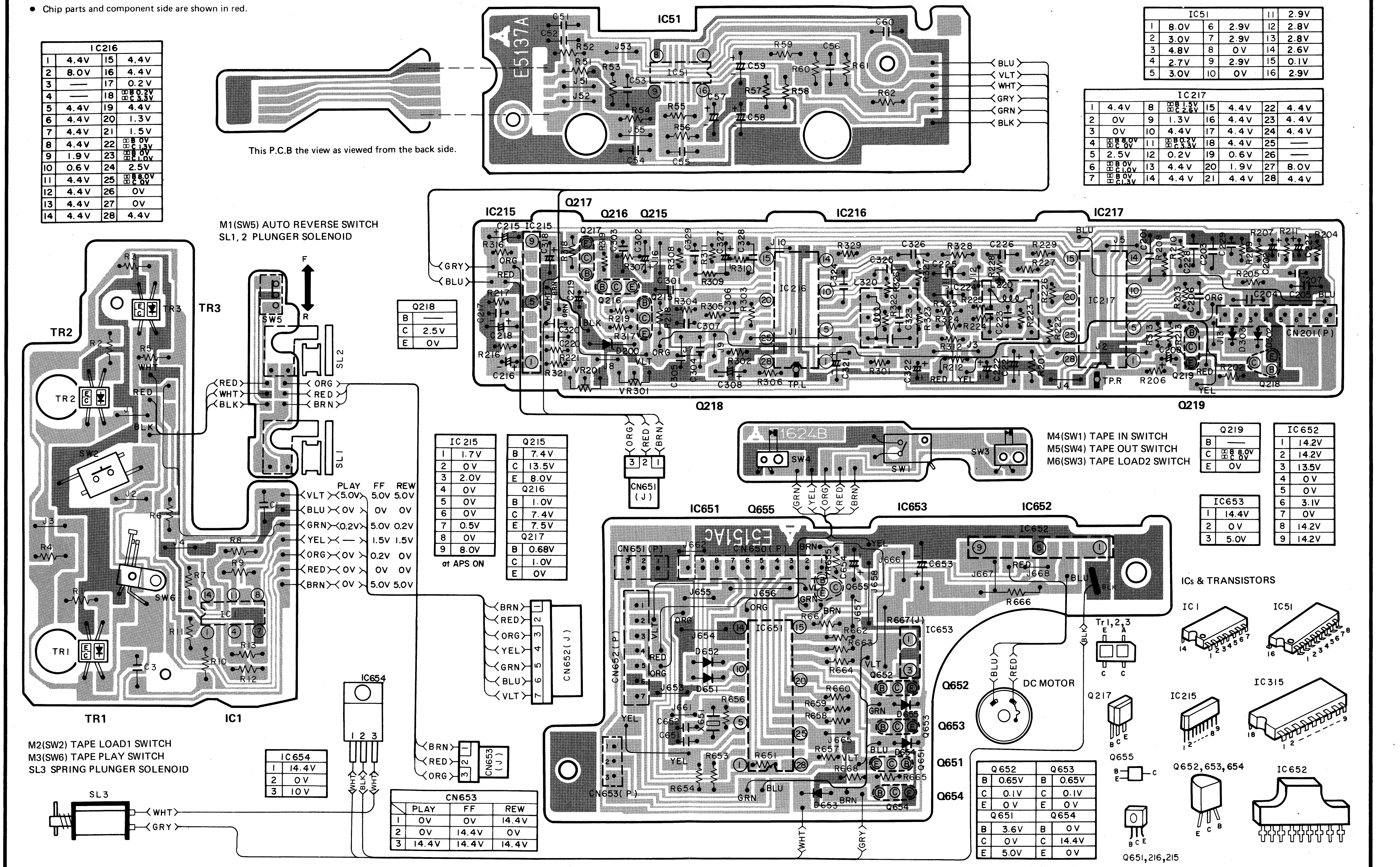
Q323	
B	0.2 V
C	0 V
E	0 V

IC701	
1	14.4 V
2	0 V
3	5.0 V

CASSETTE CAR STEREO TAPE PLAYER w/LW/MW/UKW(FM)MPX ELECTRONIC TUNER RADIO

WIRING DIAGRAM MODEL CQ-983EE/EG(TAPE BLOCK)

- Chip parts and component side are shown in red.


IC51
E5137A
This P.C.B the view as viewed from the back side.
BLU
VLT
WHT
GRY
GRN
BLK
IC215
Q217
Q216
Q215
IC216
IC217
Q218
Q219
TP.L
TP.R
CN201(P)
TR1
TR2
TR3
IC1
SW2
SW5
SW6
SL1
SL2
SL3
F
R
CN651(J)
CN652(J)
CN653(J)
CN650(P)
CN651(P)
CN652(P)
CN653(P)
IC651
Q655
IC653
IC652
IC654
Q652
Q653
Q651
Q654
E5151AC
1624B
SW1
SW3
SW4
DC MOTOR
ICs & TRANSISTORS
IC1
IC51
Tr1,2,3
IC315
IC215
Q217
Q655
Q652,653,654
IC652
Q651,216,215

M1(SW5) AUTO REVERSE SWITCH
SL1, 2 PLUNGER SOLENOID

M4(SW1) TAPE IN SWITCH
M5(SW4) TAPE OUT SWITCH
M6(SW3) TAPE LOAD2 SWITCH

M2(SW2) TAPE LOAD1 SWITCH
M3(SW6) TAPE PLAY SWITCH
SL3 SPRING PLUNGER SOLENOID

IC216			
1	4.4V	15	4,4V
2	8.0V	16	4.4V
3	—	17	0.2V
4	—	18	□□B 0.2V □□C 3.3V
5	4.4V	19	4.4V
6	4.4V	20	1.3V
7	4.4V	21	1.5V
8	4.4V	22	□□B 0V □□C 1.3V
9	1.9V	23	□□B 0V □□C 1.0V
10	0.6V	24	2.5V
11	4.4V	25	□□B 8.0V □□C 0V
12	4.4V	26	0V
13	4.4V	27	0V
14	4.4V	28	4.4V

IC51				11	2.9V
1	8.0V	6	2.9V	12	2.8V
2	3.0V	7	2.9V	13	2.8V
3	4.8V	8	0V	14	2.6V
4	2.7V	9	2.9V	15	0.1V
5	3.0V	10	0V	16	2.9V

IC217							
1	4.4V	8	□□B 1.5V □□C 2.6V	15	4.4V	22	4.4V
2	0V	9	1.3V	16	4.4V	23	4.4V
3	0V	10	4.4V	17	4.4V	24	4.4V
4	□□B 8.0V □□C 0V	11	□□B 0.2V □□C 3.3V	18	4.4V	25	—
5	2.5V	12	0.2V	19	0.6V	26	—
6	□□B 0V □□C 1.0V	13	4.4V	20	1.9V	27	8.0V
7	□□B 0V □□C 1.3V	14	4.4V	21	4.4V	28	4.4V

Q218	
B	—
C	2.5V
E	0V

	PLAY	FF	REW
VLT	5.0V	5.0V	5.0V
BLU	0V	0V	0V
GRN	0.2V	5.0V	0.2V
YEL	—	1.5V	1.5V
ORG	0V	0.2V	0V
RED	0V	0V	0V
BRN	0V	5.0V	5.0V

IC 215	
1	1.7V
2	0V
3	2.0V
4	0V
5	0V
6	0V
7	0.5V
8	0V
9	8.0V

at APS ON

Q215	
B	7.4V
C	13.5V
E	8.0V
Q216	
B	1.0V
C	7.4V
E	7.5V
Q217	
B	0.68V
C	1.0V
E	0V

Q219	
B	—
C	□□B 8.0V □□C 0V
E	0V

IC652	
1	14.2V
2	14.2V
3	13.5V
4	0V
5	0V
6	3.1V
7	0V
8	14.2V
9	14.2V

IC653	
1	14.4V
2	0V
3	5.0V

IC654	
1	14.4V
2	0V
3	10V

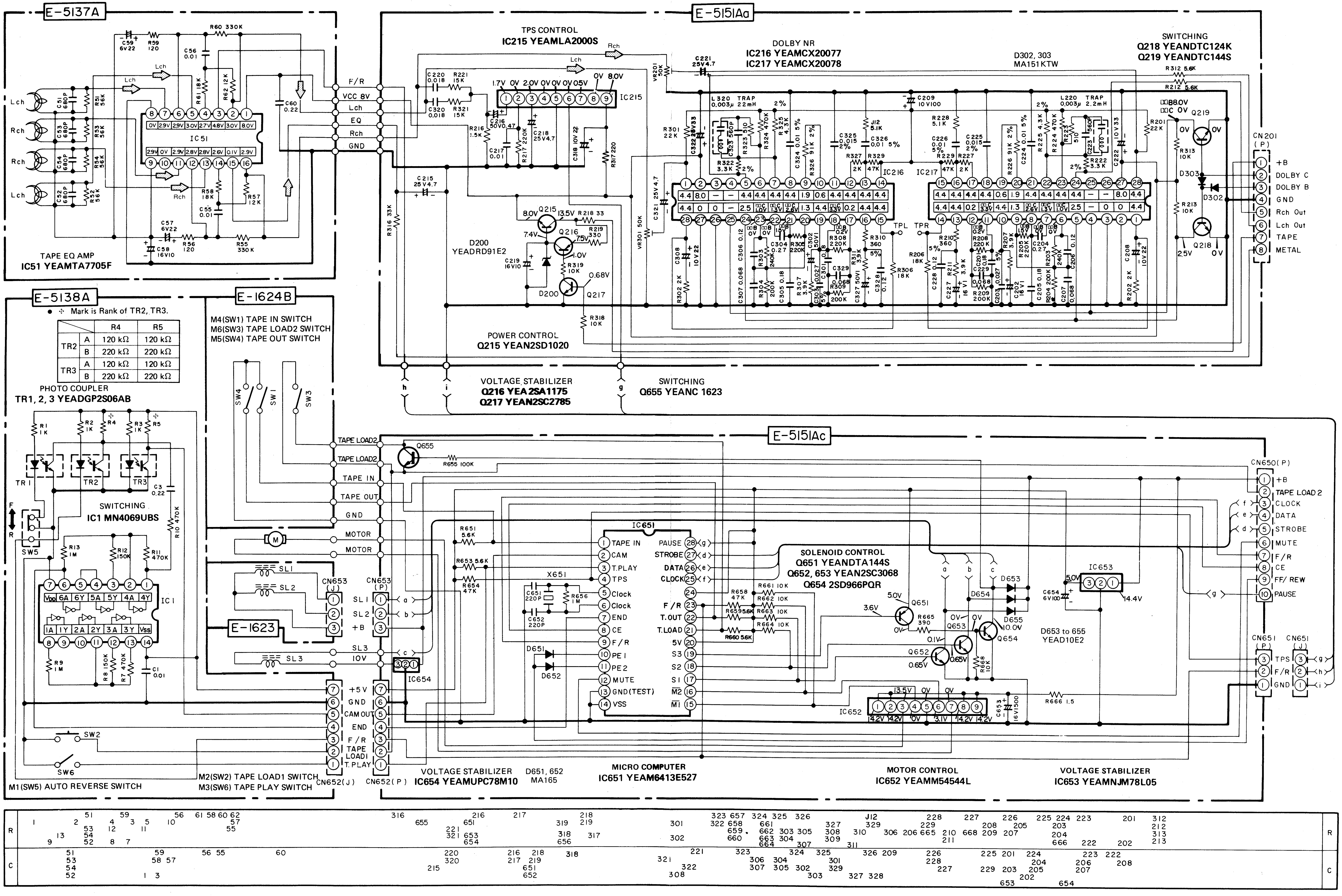
CN653			
	PLAY	FF	REW
1	0V	0V	14.4V
2	0V	14.4V	0V
3	14.4V	14.4V	14.4V

Q652		Q653	
B	0.65V	B	0.65V
C	0.1V	C	0.1V
E	0V	E	0V
Q651		Q654	
B	3.6V	B	0V
C	0V	C	14.4V
E	5.0V	E	0V

Mar., 1985

CASSETTE CAR STEREO TAPE PLAYER w/LW/MW/UKW(FM)MPX ELECTRONIC TUNER RADIO

SCHEMATIC DIAGRAM MODEL CQ-984EG(TAPE BLOCK)


E-5137A
TAPE EQ AMP
IC51 YEAMTA7705F
E-5151Aa
TPS CONTROL
IC215 YEAMLA2000S
DOLBY NR
IC216 YEAMCX20077
IC217 YEAMCX20078
D302, 303
MA151KTW
SWITCHING
Q218 YEANDTC124K
Q219 YEANDTC144S
D200
YEADRD91E2
POWER CONTROL
Q215 YEAN2SD1020
VOLTAGE STABILIZER
Q216 YEA 2SA1175
Q217 YEAN2SC2785
SWITCHING
Q655 YEANC 1623
CN201 (P)
+B
DOLBY C
DOLBY B
GND
Rch Out
Lch Out
TAPE
METAL
E-5138A
● ✧ Mark is Rank of TR2, TR3.
PHOTO COUPLER
TR1, 2, 3 YEADGP2S06AB
SWITCHING
IC1 MN4069UBS
E-1624B
M4(SW1) TAPE IN SWITCH
M6(SW3) TAPE LOAD2 SWITCH
M5(SW4) TAPE OUT SWITCH
E-1623
E-5151Ac
M1(SW5) AUTO REVERSE SWITCH
M2(SW2) TAPE LOAD1 SWITCH
M3(SW6) TAPE PLAY SWITCH
CN652(J)
CN652(P)
VOLTAGE STABILIZER
IC654 YEAMUPC78M10
D651, 652
MA165
MICRO COMPUTER
IC651 YEAM6413E527
SOLENOID CONTROL
Q651 YEANDTA144S
Q652, 653 YEAN2SC3068
Q654 2SD966PQR
D653 to 655
YEAD10E2
MOTOR CONTROL
IC652 YEAMM54544L
VOLTAGE STABILIZER
IC653 YEAMNJM78L05
CN650(P)
+B
TAPE LOAD 2
CLOCK
DATA
STROBE
MUTE
F/R
CE
FF/ REW
PAUSE
CN651 (P)
CN651 (J)
TPS
F/R
GND

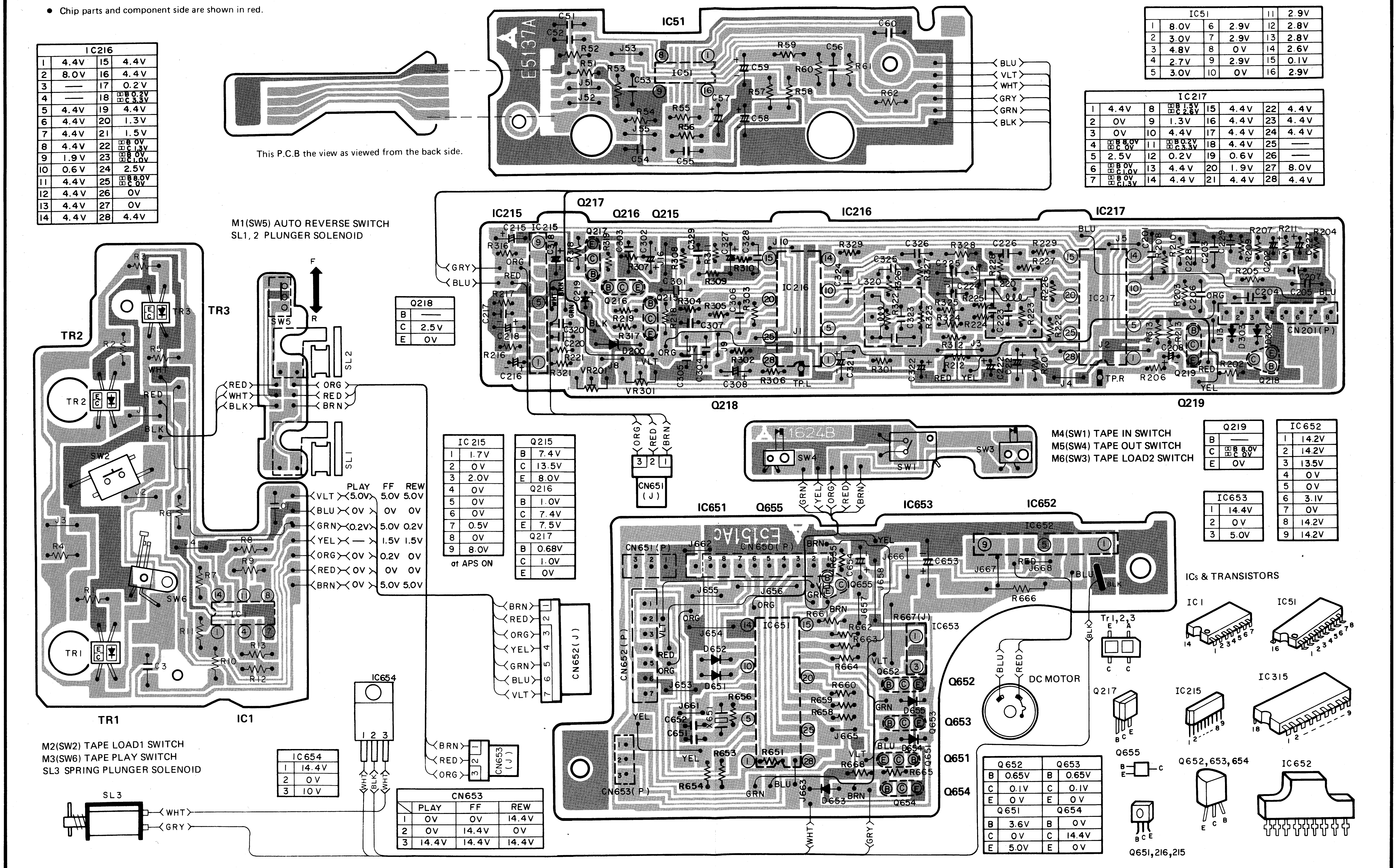
		R4	R5
TR2	A	120 kΩ	120 kΩ
	B	220 kΩ	220 kΩ
TR3	A	120 kΩ	120 kΩ
	B	220 kΩ	220 kΩ

Mar., 1985

CASSETTE CAR STEREO TAPE PLAYER w/LW/MW/UKW(FM)MPX ELECTRONIC TUNER RADIO

WIRING DIAGRAM MODEL CQ-984EG(TAPE BLOCK)

- Chip parts and component side are shown in red.


IC51
E5137A
C51
C52
R52
J53
R51
R53
J51
C53
J52
R54
J55
C54
R55
R56
C55
C57
C58
C59
R59
C56
R60
R61
R57
R58
R62
C60
BLU
VLT
WHT
GRY
GRN
BLK
IC215
Q217
Q216
Q215
IC216
IC217
Q218
Q219
TR3
TR2
TR1
IC1
SW2
SW5
SW6
SL1
SL2
SL3
F
R
CN651 (J)
CN652 (J)
CN653 (J)
IC651
Q655
IC653
IC652
IC654
E5151AC
1624B
SW4
SW1
SW3
DC MOTOR
Q652
Q653
Q651
Q654
TP.L
TP.R
VR201
VR301
CN201 (P)
CN650 (P)
CN651 (P)
CN652 (P)
CN653 (P)
ICs & TRANSISTORS
IC1
IC51
Tr1,2,3
IC215
IC315
Q217
Q655
Q652,653,654
IC652
Q651,216,215

This P.C.B the view as viewed from the back side.

M1(SW5) AUTO REVERSE SWITCH
SL1, 2 PLUNGER SOLENOID

M2(SW2) TAPE LOAD1 SWITCH
M3(SW6) TAPE PLAY SWITCH
SL3 SPRING PLUNGER SOLENOID

M4(SW1) TAPE IN SWITCH
M5(SW4) TAPE OUT SWITCH
M6(SW3) TAPE LOAD2 SWITCH

IC216			
1	4.4V	15	4.4V
2	8.0V	16	4.4V
3	—	17	0.2V
4	—	18	□□B 0.2V □□C 3.3V
5	4.4V	19	4.4V
6	4.4V	20	1.3V
7	4.4V	21	1.5V
8	4.4V	22	□□B 0V □□C 1.3V
9	1.9V	23	□□B 0V □□C 1.0V
10	0.6V	24	2.5V
11	4.4V	25	□□B 8.0V □□C 0V
12	4.4V	26	0V
13	4.4V	27	0V
14	4.4V	28	4.4V

IC51				11	2.9V
1	8.0V	6	2.9V	12	2.8V
2	3.0V	7	2.9V	13	2.8V
3	4.8V	8	0V	14	2.6V
4	2.7V	9	2.9V	15	0.1V
5	3.0V	10	0V	16	2.9V

IC217							
1	4.4V	8	□□B 1.5V □□C 2.6V	15	4.4V	22	4.4V
2	0V	9	1.3V	16	4.4V	23	4.4V
3	0V	10	4.4V	17	4.4V	24	4.4V
4	□□B 8.0V □□C 0V	11	□□B 0.2V □□C 3.3V	18	4.4V	25	—
5	2.5V	12	0.2V	19	0.6V	26	—
6	□□B 0V □□C 1.0V	13	4.4V	20	1.9V	27	8.0V
7	□□B 0V □□C 1.3V	14	4.4V	21	4.4V	28	4.4V

Q218	
B	—
C	2.5V
E	0V

	PLAY	FF	REW
VLT	5.0V	5.0V	5.0V
BLU	0V	0V	0V
GRN	0.2V	5.0V	0.2V
YEL	—	1.5V	1.5V
ORG	0V	0.2V	0V
RED	0V	0V	0V
BRN	0V	5.0V	5.0V

IC 215	
1	1.7V
2	0V
3	2.0V
4	0V
5	0V
6	0V
7	0.5V
8	0V
9	8.0V

at APS ON

Q215	
B	7.4V
C	13.5V
E	8.0V
Q216	
B	1.0V
C	7.4V
E	7.5V
Q217	
B	0.68V
C	1.0V
E	0V

Q219	
B	—
C	□□B 8.0V □□C 0V
E	0V

IC653	
1	14.4V
2	0V
3	5.0V

IC652	
1	14.2V
2	14.2V
3	13.5V
4	0V
5	0V
6	3.1V
7	0V
8	14.2V
9	14.2V

IC654	
1	14.4V
2	0V
3	10V

CN653			
	PLAY	FF	REW
1	0V	0V	14.4V
2	0V	14.4V	0V
3	14.4V	14.4V	14.4V

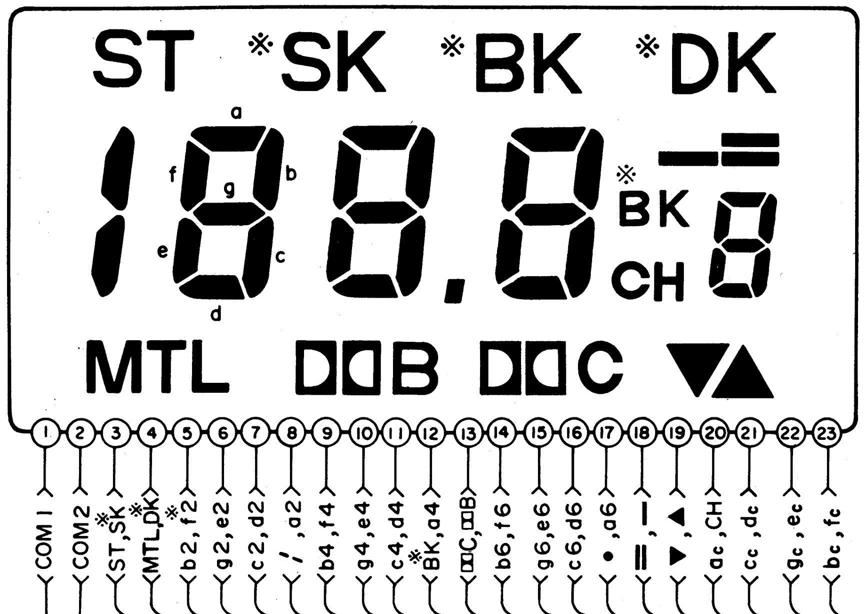
Q652		Q653	
B	0.65V	B	0.65V
C	0.1V	C	0.1V
E	0V	E	0V
Q651		Q654	
B	3.6V	B	0V
C	0V	C	14.4V
E	5.0V	E	0V

Mar., 1985

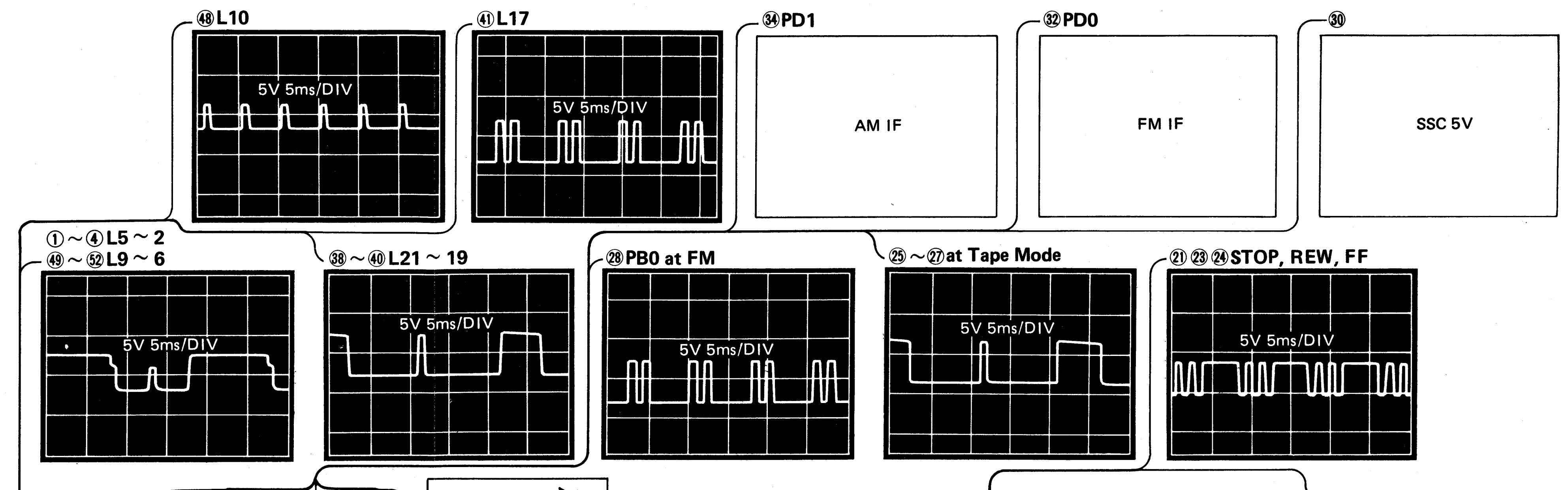
OPERATION OF MICROCOMPUTER/BEDIENUNG DES MIKROCOMPUTER

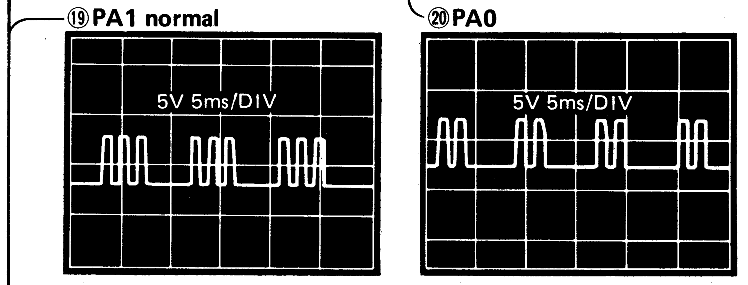
Function of microcomputer (YEAM1713G522)

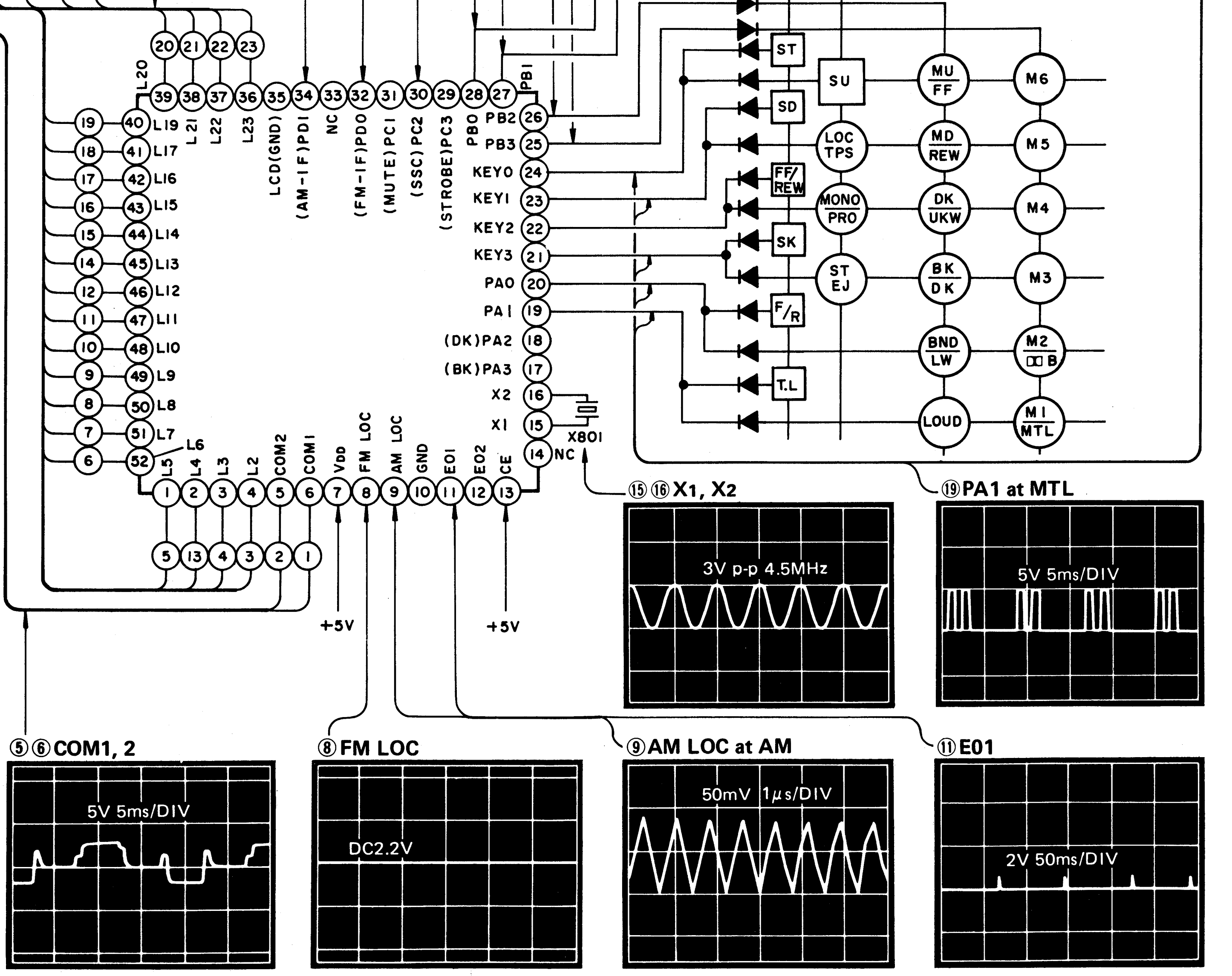
- **Display and connection of segment**


ST
※SK
※BK
※DK
188.8
a
b
c
d
e
f
g
※BK
CH
MTL
□□B
□□C
▼▲
① COM1
② COM2
③ ※ST, SK
④ ※MTL, DK
⑤ ※b2, f2
⑥ g2, e2
⑦ c2, d2
⑧ /, a2
⑨ b4, f4
⑩ g4, e4
⑪ c4, d4
⑫ ※BK, a4
⑬ □□C, □□B
⑭ b6, f6
⑮ g6, e6
⑯ c6, d6
⑰ •, a6
⑱ ‖, –
⑲ ▶, ◀
⑳ ac, CH
㉑ cc, dc
㉒ gc, ec
㉓ bc, fc

The ※ mark is at CQ-984EG


㊽L10
5V 5ms/DIV
㊶L17
5V 5ms/DIV
㉞PD1
AM IF
㉜PD0
FM IF
㉚
SSC 5V
①~④L5~2
㊾~(52)L9~6
5V 5ms/DIV
㊳~㊵L21~19
5V 5ms/DIV
㉘PB0 at FM
5V 5ms/DIV
㉕~㉗at Tape Mode
5V 5ms/DIV
㉑㉓㉔STOP, REW, FF
5V 5ms/DIV


⑲PA1 normal
5V 5ms/DIV
⑳PA0
5V 5ms/DIV


⑳㉑㉒㉓
L20
㊴㊳㊲㊱㉟㉞㉝㉜㉛㉚㉙㉘㉗
PB1
L21
L22
L23
LCD(GND)
(AM-IF)PD1
NC
(FM-IF)PD0
(MUTE)PC1
(SSC)PC2
(STROBE)PC3
PB0
PB2 ㉖
PB3 ㉕
KEY0 ㉔
KEY1 ㉓
KEY2 ㉒
KEY3 ㉑
PA0 ⑳
PA1 ⑲
(DK)PA2 ⑱
(BK)PA3 ⑰
X2 ⑯
X1 ⑮
NC ⑭
X801
⑲ ㊵ L19
⑱ ㊶ L17
⑰ ㊷ L16
⑯ ㊸ L15
⑮ ㊹ L14
⑭ ㊺ L13
⑫ ㊻ L12
⑪ ㊼ L11
⑩ ㊽ L10
⑨ ㊾ L9
⑧ (50) L8
⑦ (51) L7
⑥ (52) L6
L5
L4
L3
L2
COM2
COM1
VDD
FM LOC
AM LOC
GND
E01
E02
CE
①②③④⑤⑥⑦⑧⑨⑩⑪⑫⑬
⑤⑬④③②①
+5V
+5V
ST
SD
FF/REW
SK
F/R
T.L
SU
LOC TPS
MONO PRO
ST EJ
MU FF
MD REW
DK UKW
BK DK
BND LW
LOUD
M6
M5
M4
M3
M2 □□B
M1 MTL
⑮⑯X1, X2
3V p-p 4.5MHz
⑲PA1 at MTL
5V 5ms/DIV
⑤⑥COM1, 2
5V 5ms/DIV
⑧FM LOC
DC2.2V
⑨AM LOC at AM
50mV 1μs/DIV
⑪E01
2V 50ms/DIV

- **Name of terminals discription of connection**

Terminal	Port	Description
1~4	LCD5~2	LCD segment signal output
5, 6	COM2, 1	Common signal output for LCD
7	VDD	Power supply +5V ±0.5V
8	FM LOC	FM local signal input
9	AM LOC	AM local signal input
10	GND	Ground terminal
11	E01	Phase detection output terminal with same content
12	E02	
13	CE	Chip enable input
14	NC	Blank
15, 16	X1, X2	4.5 MHz crystal oscillator
17	PA3	BK input terminal
18	PA2	DK input terminal
19~20	PA1~0	Key matrix input
21~24	KEY3~0	Key matrix input
25	PB3	Key return signal source
26	PB2	Clock output
27	PB1	Data 1 output
28	PB0	Data 0 output
29	PC3	STROBE
30	PC2	SSC
31	PC1	MUTE
32	PD0	IF counter input terminal FM
33	NC	Not used
34	PD1	IF counter input terminal MW/LW
35	GND	GND for LCD
36~40	LCD23~19	LCD segment signal output
41~52	LCD17~6	

- Composition of key matrix

	A1	A0	K3	K2	K1	K0
PB3	M1 (MTL)	M2 (□□B)	M3 (□□C)	M4	M5	M6
PB2	LOUD	BND LW	BK MW	DK UKW	MD (REW)	MU (FF)
PB1	——	——	(ST) (EJ)	MONO (PRO)	LOC (TPS)	SU
PB0	(T.LOAD)	(F/R)	SK	(FF/REW)	SD	ST
PC3	a	b	c	d	e	f

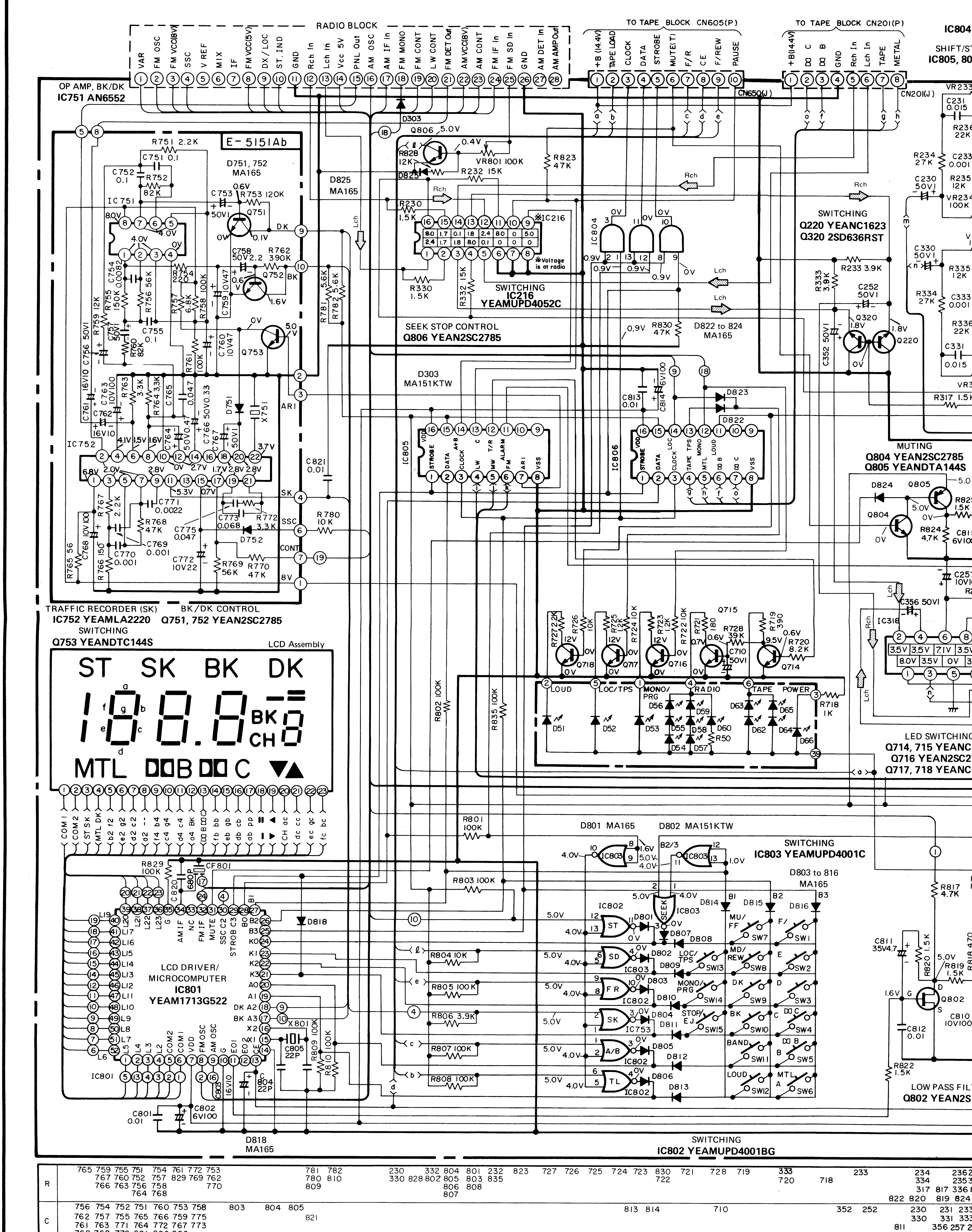
note: Parenthesis shows Tape mode

PRECAUTION IN HANDLING

(For Prevention of electrostatic fracture)

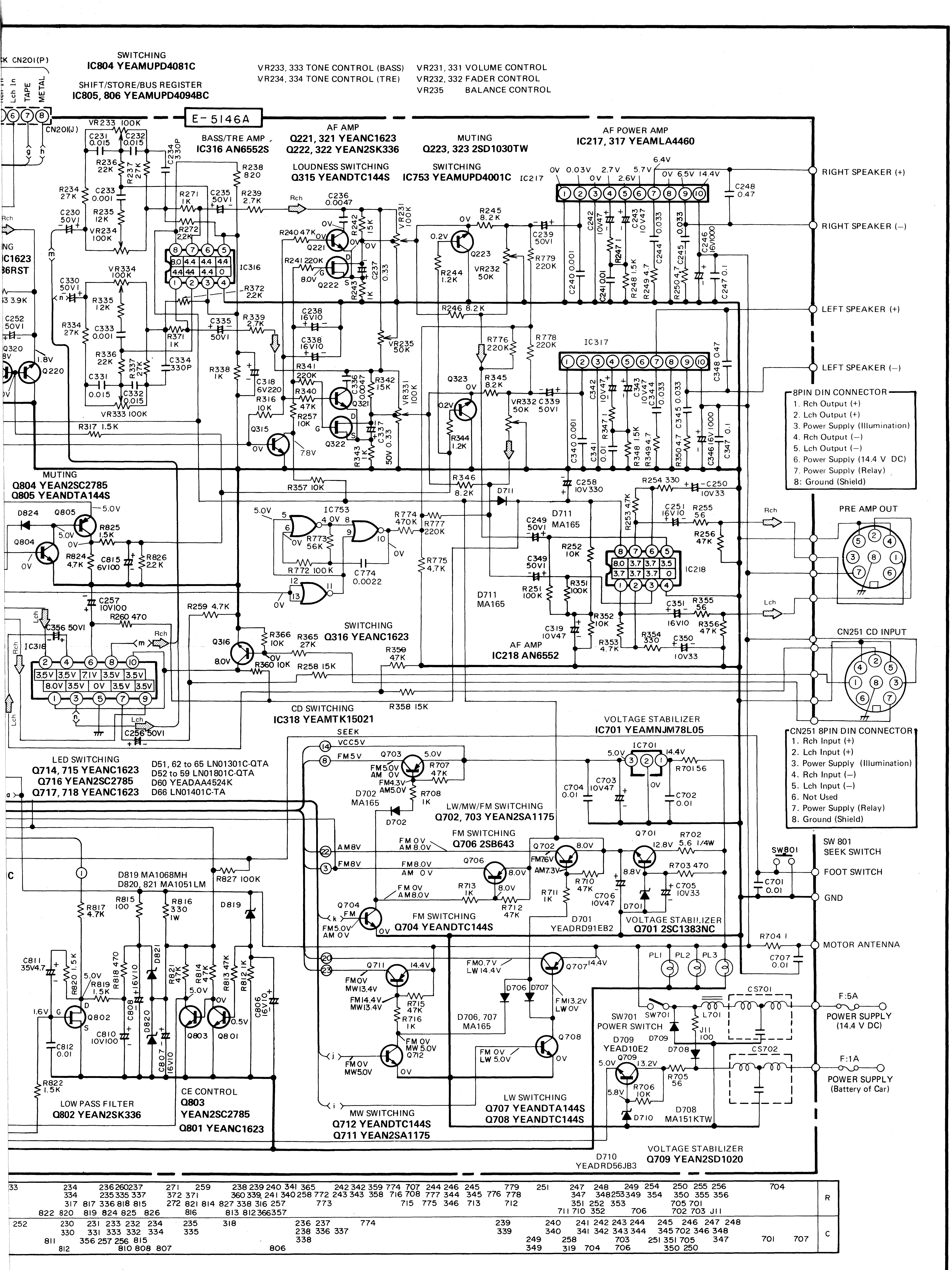
1. Except during operation, keep all terminals in contact with conductive member. (The device is delivered in this condition.)
2. Always connect the tip of soldering iron, tools, and tester to the ground when using.
3. Do not plug or unplug with the power supplied.
4. Never apply signal or voltage with the power off.
5. Keep all unused terminals at VCC or VDD.
6. Never apply the voltage exceeding the line voltage to the input terminal.

SCHEMATIC DIAGRAM MODEL CQ-984EG(CONTROL AND AUDIO BLOCK)


RADIO BLOCK
VAR
FM OSC
FM VCC(8V)
SSC
V REF
MIX
IF
FM VCC(5V)
DX/LOC
ST. IND
GND
Rch In
Lch In
Vcc 5V
PNL Out
AM OSC
AM IF In
FM MONO
FM CONT
LW CONT
FM DET Out
AM VCC(8V)
AM CONT
FM IF In
FM SD In
GND
AM DET In
AM AMP Out
TO TAPE BLOCK CN605(P)
+B (14.4V)
TAPE LOAD
CLOCK
DATA
STROBE
MUTE(T)
F/R
CE
F/REW
PAUSE
CN650(J)
TO TAPE BLOCK CN201(P)
+B(14.4V)
DOLBY C
DOLBY B
GND
Rch In
Lch In
TAPE
METAL
CN201(J)
OP AMP, BK/DK
IC751 AN6552
E-5151Ab
D751, 752
MA165
D303
D825
MA165
Q806
SWITCHING
IC216
YEAMUPD4052C
※Voltage is at radio
SEEK STOP CONTROL
Q806 YEAN2SC2785
SWITCHING
Q220 YEANC1623
Q320 2SD636RST
D822 to 824
MA165
D303
MA151KTW
IC805
IC806
IC804
MUTING
Q804 YEAN2SC2785
Q805 YEANDTA144S
TRAFFIC RECORDER (SK)
IC752 YEAMLA2220
BK/DK CONTROL
Q751, 752 YEAN2SC2785
SWITCHING
Q753 YEANDTC144S
LCD Assembly
ST SK BK DK
MTL
BK
CH
LOUD
LOC/TPS
MONO/PRG
RADIO
TAPE
POWER
LED SWITCHING
Q714, 715 YEANC
Q716 YEAN2SC2
Q717, 718 YEANC
D801 MA165
D802 MA151KTW
SWITCHING
IC803 YEAMUPD4001C
D803 to 816
MA165
SEEK
LCD DRIVER/
MICROCOMPUTER
IC801
YEAM1713G522
D818
MA165
SWITCHING
IC802 YEAMUPD4001BG
LOW PASS FILT
Q802 YEAN2S
IC318
SHIFT/ST
IC805, 80

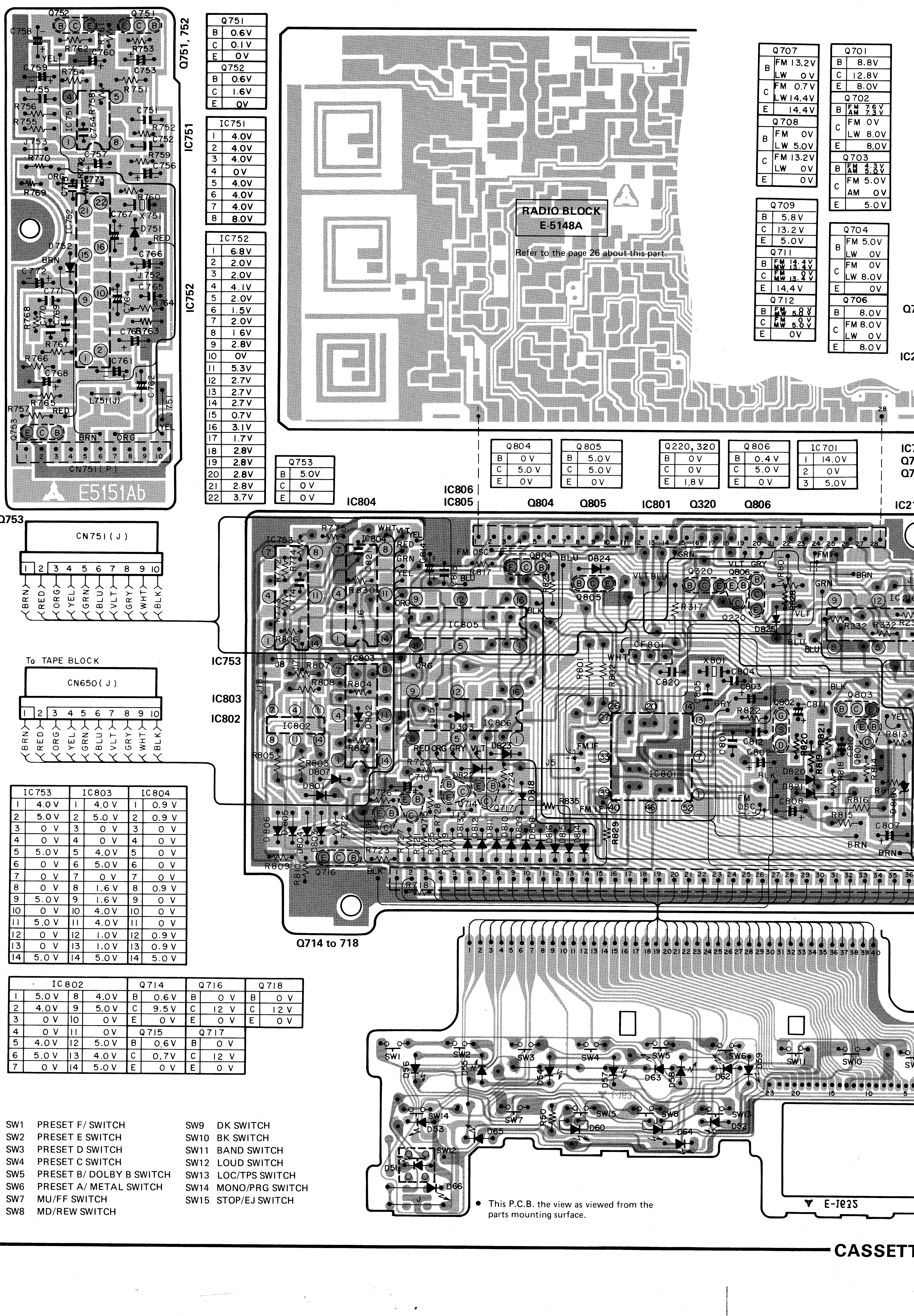
R	765 759 755 751 754 761 772 753 767 760 752 757 829 769 762 766 763 756 758 770 764 768		781 782 780 810 809	230 332 804 801 232 330 828 802 805 803 835 806 808 807	823	727	726	725	724	723	830 722	721	728	719	333 720	718	233		234 334 317 822 820	817 819	236 235 336 824
C	756 754 752 751 760 753 758 762 757 755 765 766 759 775 761 763 771 764 772 767 773 768 769 770 801 820 802	803	804 805 821							813	814		710			352	252		230 330 811 812	231 331 356	233 333 257

CASSET


CN201(P)
Lch In
TAPE
METAL
CN201(J)
SWITCHING
IC804 YEAMUPD4081C
SHIFT/STORE/BUS REGISTER
IC805, 806 YEAMUPD4094BC
VR233, 333 TONE CONTROL (BASS)
VR234, 334 TONE CONTROL (TRE)
VR231, 331 VOLUME CONTROL
VR232, 332 FADER CONTROL
VR235 BALANCE CONTROL
E-5146A
BASS/TRE AMP
IC316 AN6552S
AF AMP
Q221, 321 YEANC1623
Q222, 322 YEAN2SK336
LOUDNESS SWITCHING
Q315 YEANDTC144S
MUTING
Q223, 323 2SD1030TW
SWITCHING
IC753 YEAMUPD4001C
AF POWER AMP
IC217, 317 YEAMLA4460
IC1623
RIGHT SPEAKER (+)
RIGHT SPEAKER (–)
LEFT SPEAKER (+)
LEFT SPEAKER (–)
8PIN DIN CONNECTOR
1. Rch Output (+)
2. Lch Output (+)
3. Power Supply (Illumination)
4. Rch Output (–)
5. Lch Output (–)
6. Power Supply (14.4 V DC)
7. Power Supply (Relay)
8: Ground (Shield)
MUTING
Q804 YEAN2SC2785
Q805 YEANDTA144S
IC753
PRE AMP OUT
AF AMP
IC218 AN6552
SWITCHING
Q316 YEANC1623
CN251 CD INPUT
CD SWITCHING
IC318 YEAMTK15021
SEEK
VOLTAGE STABILIZER
IC701 YEAMNJM78L05
CN251 8PIN DIN CONNECTOR
1. Rch Input (+)
2. Lch Input (+)
3. Power Supply (Illumination)
4. Rch Input (–)
5. Lch Input (–)
6. Not Used
7. Power Supply (Relay)
8. Ground (Shield)
LED SWITCHING
Q714, 715 YEANC1623
Q716 YEAN2SC2785
Q717, 718 YEANC1623
D51, 62 to 65 LN01301C-QTA
D52 to 59 LN01801C-QTA
D60 YEADAA4524K
D66 LN01401C-TA
LW/MW/FM SWITCHING
Q702, 703 YEAN2SA1175
FM SWITCHING
Q706 2SB643
SW 801
SEEK SWITCH
FOOT SWITCH
GND
D819 MA1068MH
D820, 821 MA1051LM
FM SWITCHING
Q704 YEANDTC144S
D701
YEADRD91EB2
VOLTAGE STABILIZER
Q701 2SC1383NC
MOTOR ANTENNA
D706, 707
MA165
SW701
POWER SWITCH
D709
YEAD10E2
F:5A
POWER SUPPLY
(14.4 V DC)
F:1A
POWER SUPPLY
(Battery of Car)
LOW PASS FILTER
Q802 YEAN2SK336
CE CONTROL
Q803
YEAN2SC2785
Q801 YEANC1623
MW SWITCHING
Q712 YEANDTC144S
Q711 YEAN2SA1175
LW SWITCHING
Q707 YEANDTA144S
Q708 YEANDTC144S
D708
MA151KTW
D710
YEADRD56JB3
VOLTAGE STABILIZER
Q709 YEAN2SD1020
R
C

CASSETTE CAR STEREO TAPE PLAYER w/LW/MW/UKW(FM)MPX ELECTRONIC TUNER RADIO

WIRING DIAGRAM MODEL CQ-984EG(CONTROL AND AUDIO BLOCK)


Q751, 752
IC751
IC752
Q753
E5151Ab
CN751(P)
CN751 (J)
To TAPE BLOCK
CN650 (J)
BRN
RED
ORG
YEL
GRN
BLU
VLT
GRY
WHT
BLK
RADIO BLOCK
E-5148A
IC806
IC805
IC804
Q804
Q805
IC801
Q320
Q806
IC753
IC803
IC802
Q714 to 718
E-1835
CASSETT

Refer to the page 26 about this part.

Q751	
B	0.6V
C	0.1V
E	0V

Q752	
B	0.6V
C	1.6V
E	0V

IC751	
1	4.0V
2	4.0V
3	4.0V
4	0V
5	4.0V
6	4.0V
7	4.0V
8	8.0V

IC752	
1	6.8V
2	2.0V
3	2.0V
4	4.1V
5	2.0V
6	1.5V
7	2.0V
8	1.6V
9	2.8V
10	0V
11	5.3V
12	2.7V
13	2.7V
14	2.7V
15	0.7V
16	3.1V
17	1.7V
18	2.8V
19	2.8V
20	2.8V
21	2.8V
22	3.7V

Q753	
B	5.0V
C	0V
E	0V

Q707	
B	FM 13.2V LW 0V
C	FM 0.7V LW 14.4V
E	14.4V

Q708	
B	FM 0V LW 5.0V
C	FM 13.2V LW 0V
E	0V

Q709	
B	5.8V
C	13.2V
E	5.0V

Q711	
B	FM 14.4V MW 13.4V
C	FM 0V MW 13.4V
E	14.4V

Q712	
B	FM 0V MW 5.0V
C	FM 0V MW 5.0V
E	0V

Q701	
B	8.8V
C	12.8V
E	8.0V

Q702	
B	FM 7.6V AM 7.3V
C	FM 0V LW 8.0V
E	8.0V

Q703	
B	FM 4.3V AM 5.0V
C	FM 5.0V AM 0V
E	5.0V

Q704	
B	FM 5.0V LW 0V
C	FM 0V LW 8.0V
E	0V

Q706	
B	8.0V
C	FM 8.0V LW 0V
E	8.0V

Q804	
B	0V
C	5.0V
E	0V

Q805	
B	5.0V
C	5.0V
E	0V

Q220, 320	
B	0V
C	0V
E	1.8V

Q806	
B	0.4V
C	5.0V
E	0V

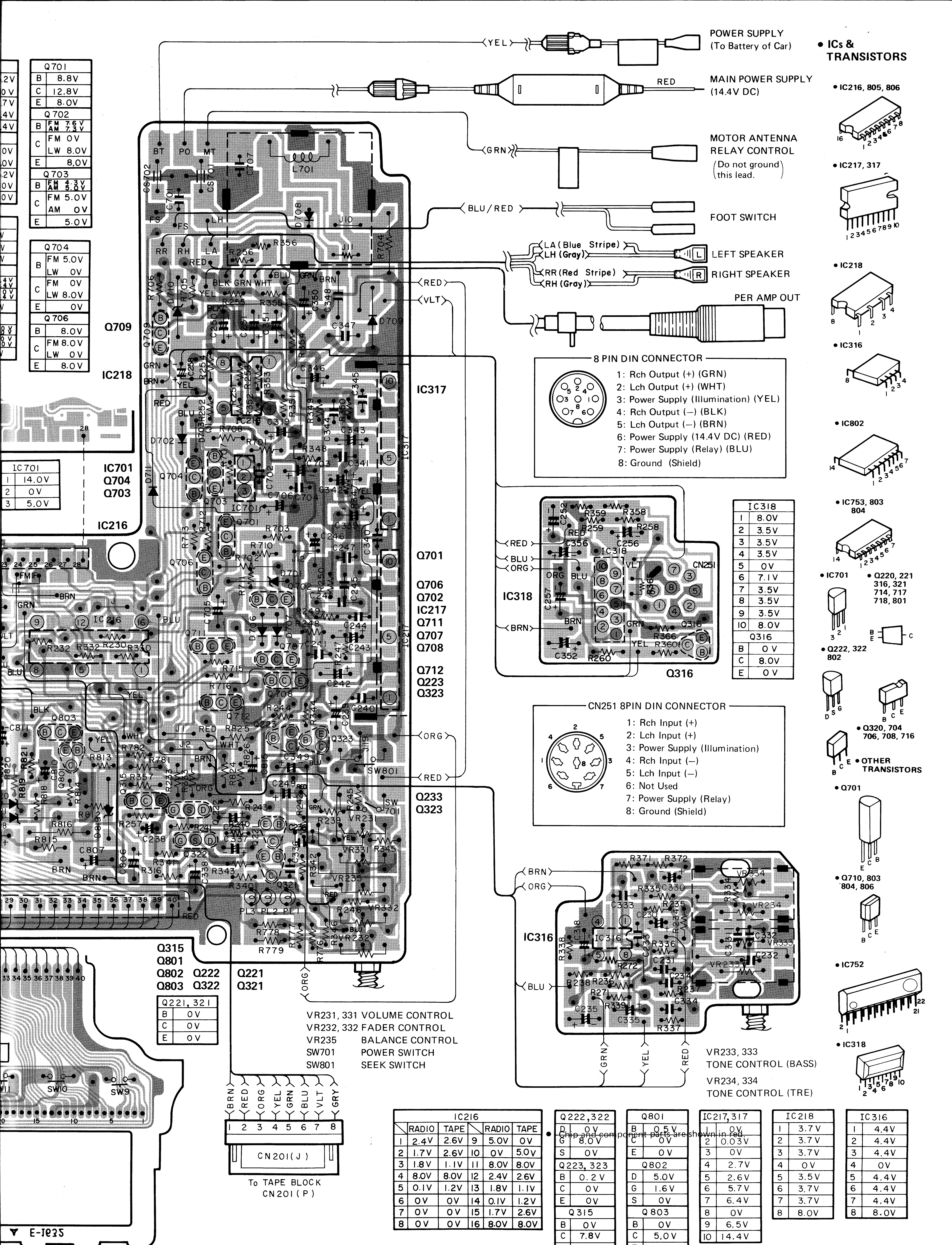
IC701	
1	14.0V
2	0V
3	5.0V

IC753		IC803		IC804	
1	4.0V	1	4.0V	1	0.9V
2	5.0V	2	5.0V	2	0.9V
3	0V	3	0V	3	0V
4	0V	4	0V	4	0V
5	5.0V	5	4.0V	5	0V
6	0V	6	5.0V	6	0V
7	0V	7	0V	7	0V
8	0V	8	1.6V	8	0.9V
9	5.0V	9	1.6V	9	0V
10	0V	10	4.0V	10	0V
11	5.0V	11	4.0V	11	0V
12	0V	12	1.0V	12	0.9V
13	0V	13	1.0V	13	0.9V
14	5.0V	14	5.0V	14	5.0V

IC802				Q714		Q716		Q718	
1	5.0V	8	4.0V	B	0.6V	B	0V	B	0V
2	4.0V	9	5.0V	C	9.5V	C	12V	C	12V
3	0V	10	0V	E	0V	E	0V	E	0V
4	0V	11	0V	Q715		Q717			
5	4.0V	12	5.0V	B	0.6V	B	0V		
6	5.0V	13	4.0V	C	0.7V	C	12V		
7	0V	14	5.0V	E	0V	E	0V		

SW1	PRESET F/ SWITCH
SW2	PRESET E SWITCH
SW3	PRESET D SWITCH
SW4	PRESET C SWITCH
SW5	PRESET B/ DOLBY B SWITCH
SW6	PRESET A/ METAL SWITCH
SW7	MU/FF SWITCH
SW8	MD/REW SWITCH
SW9	DK SWITCH
SW10	BK SWITCH
SW11	BAND SWITCH
SW12	LOUD SWITCH
SW13	LOC/TPS SWITCH
SW14	MONO/PRG SWITCH
SW15	STOP/EJ SWITCH

- This P.C.B. the view as viewed from the parts mounting surface.


POWER SUPPLY
(To Battery of Car)
MAIN POWER SUPPLY
(14.4V DC)
MOTOR ANTENNA
RELAY CONTROL
(Do not ground this lead.)
FOOT SWITCH
LA (Blue Stripe)
LH (Gray)
LEFT SPEAKER
RR (Red Stripe)
RH (Gray)
RIGHT SPEAKER
PER AMP OUT
YEL
RED
GRN
BLU/RED
VLT
ORG
BRN
BLU
GRY
Q709
IC218
IC701
Q704
Q703
IC216
IC317
Q701
Q706
Q702
IC217
Q711
Q707
Q708
Q712
Q223
Q323
Q233
Q323
IC318
Q316
IC316
Q315
Q801
Q802
Q803
Q222
Q322
Q221
Q321
CN201(J)
To TAPE BLOCK
CN201(P)
E-1935
• ICs & TRANSISTORS
• IC216, 805, 806
• IC217, 317
• IC218
• IC316
• IC802
• IC753, 803, 804
• IC701
• Q220, 221, 316, 321, 714, 717, 718, 801
• Q222, 322, 802
• Q320, 704, 706, 708, 716
• OTHER TRANSISTORS
• Q701
• Q710, 803, 804, 806
• IC752
• IC318

8 PIN DIN CONNECTOR

1: Rch Output (+) (GRN)
2: Lch Output (+) (WHT)
3: Power Supply (Illumination) (YEL)
4: Rch Output (–) (BLK)
5: Lch Output (–) (BRN)
6: Power Supply (14.4V DC) (RED)
7: Power Supply (Relay) (BLU)
8: Ground (Shield)

CN251 8PIN DIN CONNECTOR

1: Rch Input (+)
2: Lch Input (+)
3: Power Supply (Illumination)
4: Rch Input (–)
5: Lch Input (–)
6: Not Used
7: Power Supply (Relay)
8: Ground (Shield)

VR231, 331 VOLUME CONTROL
VR232, 332 FADER CONTROL
VR235 BALANCE CONTROL
SW701 POWER SWITCH
SW801 SEEK SWITCH

VR233, 333
TONE CONTROL (BASS)
VR234, 334
TONE CONTROL (TRE)

• Chip and component parts are shown in red.

Q701	
B	8.8V
C	12.8V
E	8.0V

Q702	
B	FM 7.6V AM 7.3V
C	FM 0V LW 8.0V
E	8.0V

Q703	
B	FM 4.3V AM 5.0V
C	FM 5.0V AM 0V
E	5.0V

Q704	
B	FM 5.0V LW 0V
C	FM 0V LW 8.0V
E	0V

Q706	
B	8.0V
C	FM 8.0V LW 0V
E	8.0V

IC701	
1	14.0V
2	0V
3	5.0V

IC318	
1	8.0V
2	3.5V
3	3.5V
4	3.5V
5	0V
6	7.1V
7	3.5V
8	3.5V
9	3.5V
10	8.0V

Q316	
B	0V
C	8.0V
E	0V

Q221, 321	
B	0V
C	0V
E	0V

IC216					
	RADIO	TAPE		RADIO	TAPE
1	2.4V	2.6V	9	5.0V	0V
2	1.7V	2.6V	10	0V	5.0V
3	1.8V	1.1V	11	8.0V	8.0V
4	8.0V	8.0V	12	2.4V	2.6V
5	0.1V	1.2V	13	1.8V	1.1V
6	0V	0V	14	0.1V	1.2V
7	0V	0V	15	1.7V	2.6V
8	0V	0V	16	8.0V	8.0V

Q222, 322	
D	0V
G	8.0V
S	0V

Q223, 323	
B	0.2V
C	0V
E	0V

Q315	
B	0V
C	7.8V
E	0V

Q801	
B	0.5V
C	0V
E	0V

Q802	
D	5.0V
G	1.6V
S	0V

Q803	
B	0V
C	5.0V
E	0V

IC217, 317	
1	0V
2	0.03V
3	0V
4	2.7V
5	2.6V
6	5.7V
7	6.4V
8	0V
9	6.5V
10	14.4V

IC218	
1	3.7V
2	3.7V
3	3.7V
4	0V
5	3.5V
6	3.7V
7	3.7V
8	8.0V

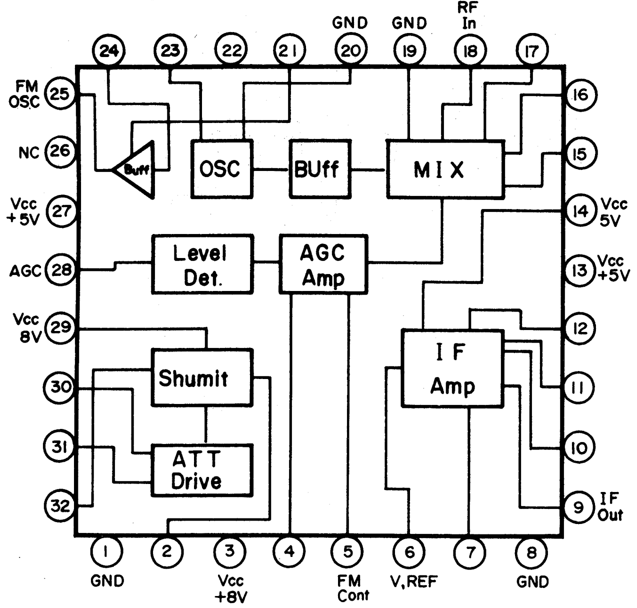
IC316	
1	4.4V
2	4.4V
3	4.4V
4	0V
5	4.4V
6	4.4V
7	4.4V
8	8.0V

CASSETTE CAR STEREO TAPE PLAYER w/LW/MW/UKW(FM)MPX ELECTRONIC TUNER RADIO

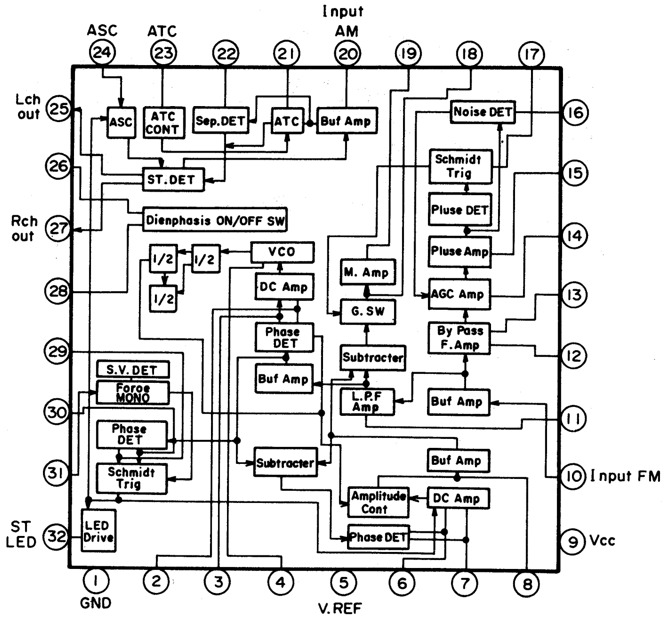
IC BLOCK DIAGRAM/IC BLOCK DIAGRAM

RADIO BLOCK

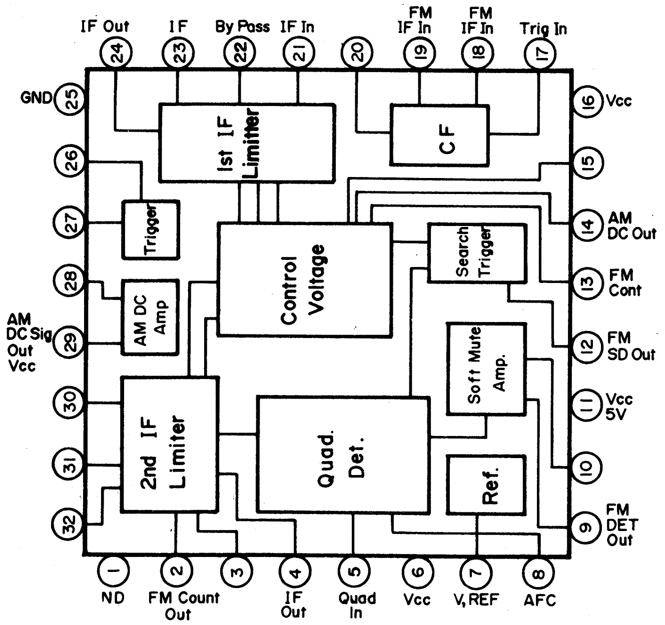
- **AN7264C (IC1)**


GND
GND
RF In
FM OSC
NC
Vcc +5V
AGC
Vcc 8V
Buff
OSC
BUff
MIX
Level Det.
AGC Amp
I F Amp
Shumit
ATT Drive
Vcc 5V
Vcc +5V
IF Out
GND
Vcc +8V
FM Cont
V,REF
GND

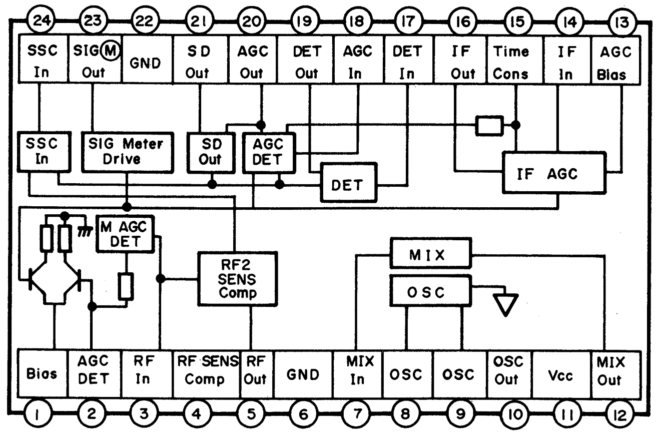
- **AN7466C (IC2)**


ASC
ATC
Input AM
Lch out
Rch out
ST LED
ASC
ATC CONT
Sep.DET
ATC
Buf Amp
Noise DET
ST.DET
Schmidt Trig
Dienphasis ON/OFF SW
Pluse DET
VCO
1/2
1/2
1/2
Pluse Amp
DC Amp
M. Amp
AGC Amp
G.SW
Phase DET
By Pass F.Amp
Subtracter
S.V.DET
Buf Amp
Foroe MONO
L.P.F Amp
Buf Amp
Phase DET
Subtracter
Buf Amp
Schmidt Trig
Amplitude Cont
DC Amp
LED Drive
Phase DET
Input FM
Vcc
GND
V.REF

- **AN7268C (IC3)**

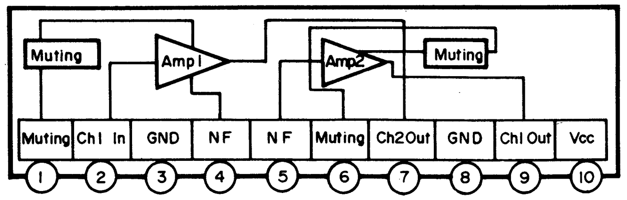

IF Out
IF
By Pass
IF In
FM IF In
FM IF In
Trig In
GND
Vcc
1st IF Limitter
CF
Trigger
AM DC Out
FM Cont
Control Voltage
Search Trigger
AM DC Amp
AM DC Sig Out Vcc
FM SD Out
Soft Mute Amp.
Vcc 5V
2nd IF Limiter
Quad. Det.
Ref.
FM DET Out
ND
FM Count Out
IF Out
Quad In
Vcc
V,REF
AFC

- **YEAMUPD1296C (IC4)**

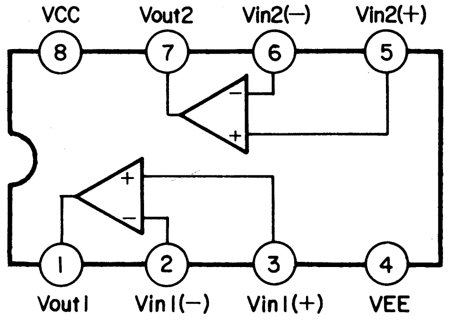

SSC In
SIG M Out
GND
S D Out
AGC Out
DET Out
AGC In
DET In
IF Out
Time Cons
IF In
AGC Bias
SSC In
SIG Meter Drive
SD Out
AGC DET
DET
IF AGC
M AGC DET
RF2 SENS Comp
MIX
OSC
Bias
AGC DET
RF In
RF SENS Comp
RF Out
GND
MIX In
OSC
OSC
OSC Out
Vcc
MIX Out

CONTROL, AUDIO BLOCK

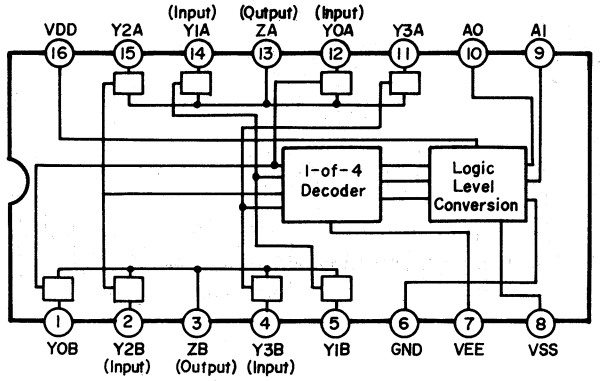
- **YEAMLA4460 (IC217, 317)**


Muting
Amp1
Amp2
Muting
Muting
Ch1 In
GND
NF
N F
Muting
Ch2 Out
GND
Ch1 Out
Vcc

- **AN6552 (IC218, 316, 751)**


VCC
Vout2
Vin2(−)
Vin2(+)
Vout1
Vin1(−)
Vin1(+)
VEE

- **YEAMUPD4052C (IC216)**

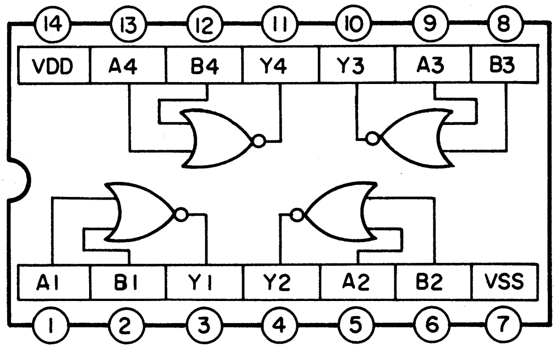

VDD
Y2A
(Input) Y1A
(Output) ZA
(Input) Y0A
Y3A
A0
A1
1-of-4 Decoder
Logic Level Conversion
Y0B
Y2B (Input)
ZB (Output)
Y3B (Input)
Y1B
GND
VEE
VSS

- **Truth value table of YEAMUPD4052C**

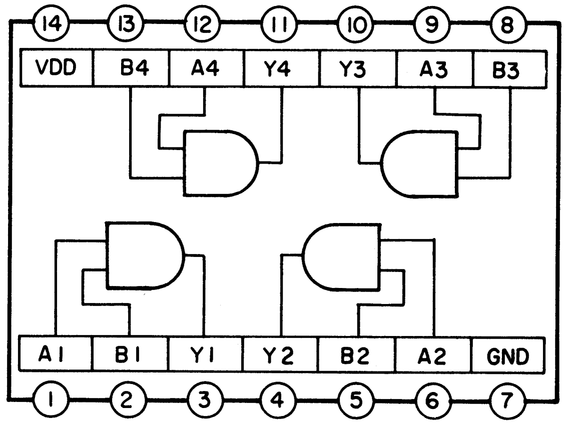
Control Input			"ON" Channel
INHIBIT	B	A	
L	L	L	Y_0, X_0
L	L	H	Y_1, X_1
L	H	L	Y_2, X_2
L	H	H	Y_3, X_3
H	X	X	NONE

note: H = High Level
L = Low Level
X = H or L

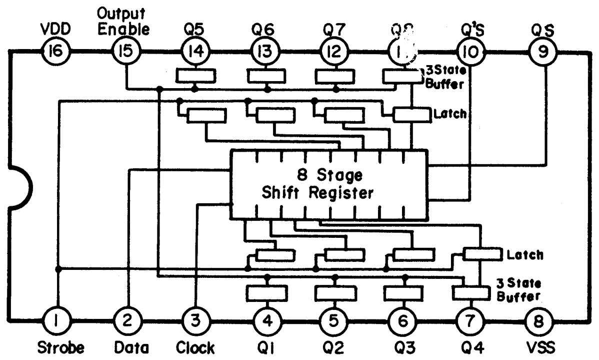
- **YEAMUPD4001BG (IC802)**


VDD
A4
B4
Y4
Y3
A3
B3
A1
B1
Y1
Y2
A2
B2
VSS

- **YEAMUPD4081C (IC804)**


VDD
B4
A4
Y4
Y3
A3
B3
A1
B1
Y1
Y2
B2
A2
GND

- **YEAMUPD4094B (IC805, IC806)**

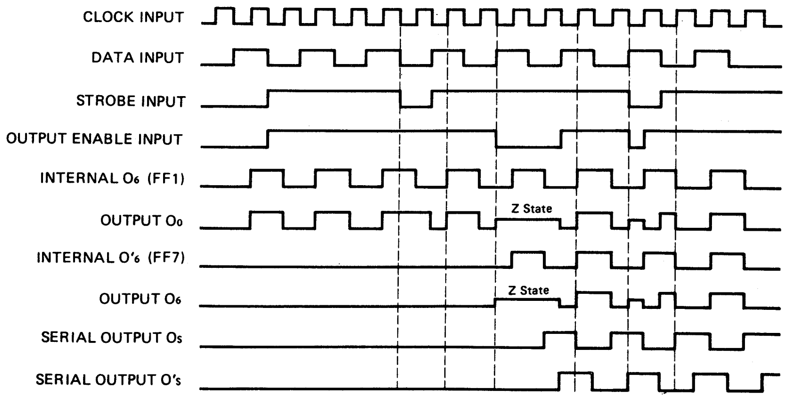

VDD
Output Enable
Q5
Q6
Q7
Q8
Q'S
QS
3State Buffer
Latch
8 Stage Shift Register
Latch
3State Buffer
Strobe
Data
Clock
Q1
Q2
Q3
Q4
VSS

- **Truth value table of YEAMUPD4094B**

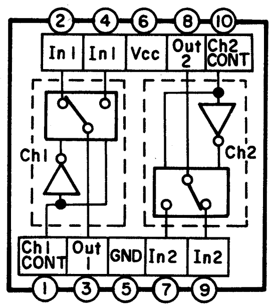
CLOCK	OUTPUT ENABLE	STROBE	DATA	PARALLEL OUTPUT		SERIES OUTPUT	
				O_0	O_N	O_S	O'_S
↑	L	X	X	HIGH IMPEDARCE	HIGH IMPEDARCE	O'_6	NO CHANGE
↓	L	X	X	HIGH IMPEDARCE	HIGH IMPEDARCE	NO CHANGE	O_7
↑	H	L	X	NO CHANGE	NO CHANGE	O'_6	NO CHANGE
↑	H	H	L	L	O_{N-1}	O'_6	NO CHANGE
↑	H	H	H	H	O_{N-1}	O'_6	NO CHANGE
↓	H	H	H	NO CHANGE	NO CHANGE	NO CHANGE	O_7

note: H = High Level
L = Low Level
X = H or L

- **Timing chart of YEAMUPD4094B**

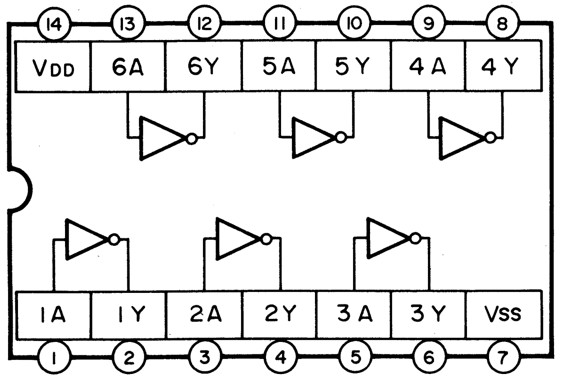


- **YEAMTK15021 (IC318)**

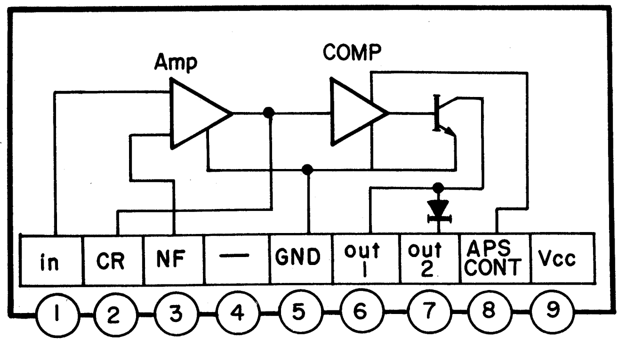

In1
In1
Vcc
Out 2
Ch2 CONT
Ch1
Ch2
Ch1 CONT
Out 1
GND
In2
In2

TAPE BLOCK

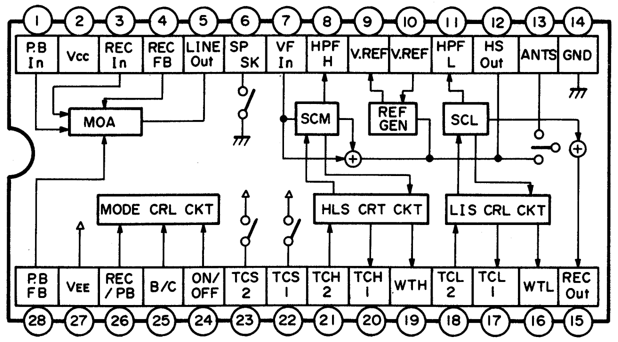
- **MN4069UBS (IC1)**


14 13 12 11 10 9 8
VDD 6A 6Y 5A 5Y 4A 4Y
1A 1Y 2A 2Y 3A 3Y VSS
1 2 3 4 5 6 7

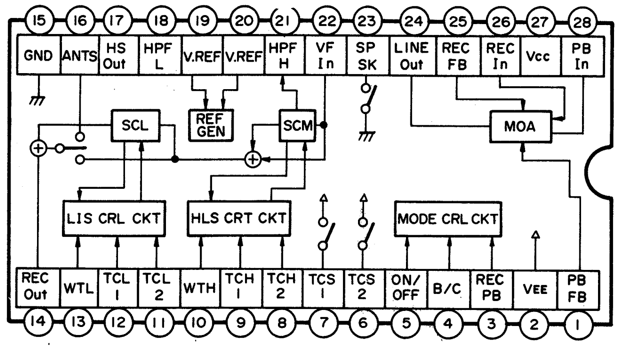
- **YEALA2000S (IC215)**


Amp
COMP
in CR NF — GND out 1 out 2 APS CONT Vcc
1 2 3 4 5 6 7 8 9

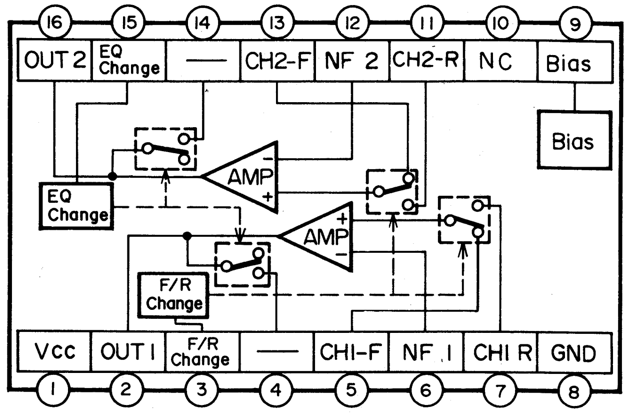
- **YEAMCX2007 (IC216)**


1 2 3 4 5 6 7 8 9 10 11 12 13 14
P.B In
Vcc
REC In
REC FB
LINE Out
SP SK
VF In
HPF H
V.REF
V.REF
HPF L
HS Out
ANTS
GND
MOA
SCM
REF GEN
SCL
MODE CRL CKT
HLS CRT CKT
LIS CRL CKT
P.B FB
VEE
REC /PB
B/C
ON/ OFF
TCS 2
TCS 1
TCH 2
TCH 1
WTH
TCL 2
TCL 1
WTL
REC Out
28 27 26 25 24 23 22 21 20 19 18 17 16 15

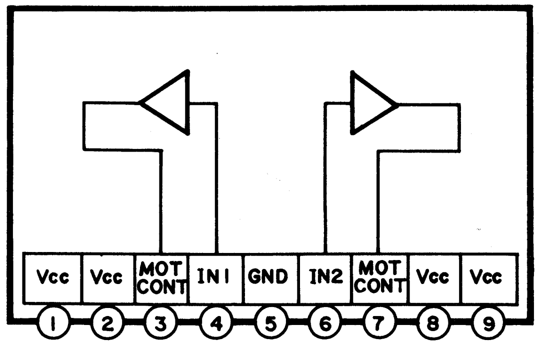
- **YEAMCX20078 (IC217)**


15 16 17 18 19 20 21 22 23 24 25 26 27 28
GND
ANTS
HS Out
HPF L
V.REF
V.REF
HPF H
VF In
SP SK
LINE Out
REC FB
REC In
Vcc
PB In
SCL
REF GEN
SCM
MOA
LIS CRL CKT
HLS CRT CKT
MODE CRL CKT
REC Out
WTL
TCL 1
TCL 2
WTH
TCH 1
TCH 2
TCS 1
TCS 2
ON/ OFF
B/C
REC PB
VEE
PB FB
14 13 12 11 10 9 8 7 6 5 4 3 2 1

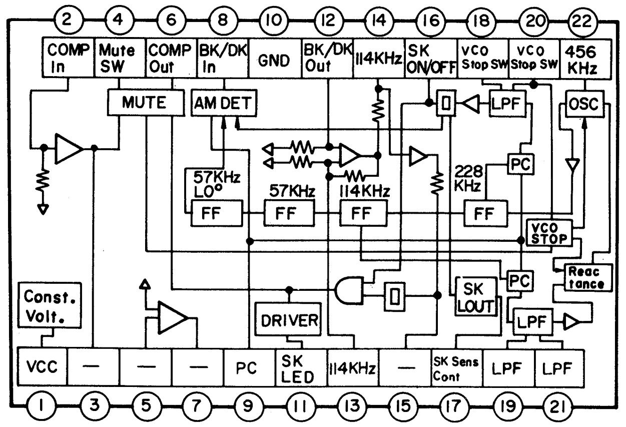
- **YETMTA7705F (IC51)**


16 15 14 13 12 11 10 9
OUT 2
EQ Change
—
CH2-F
NF 2
CH2-R
NC
Bias
Bias
AMP
AMP
EQ Change
F/R Change
Vcc
OUT 1
F/R Change
—
CH1-F
NF 1
CH1 R
GND
1 2 3 4 5 6 7 8

- **YEAMM54544L (IC652)**


Vcc
Vcc
MOT CONT
IN 1
GND
IN 2
MOT CONT
Vcc
Vcc
1 2 3 4 5 6 7 8 9

- **YEAMLA2220 (IC752)**

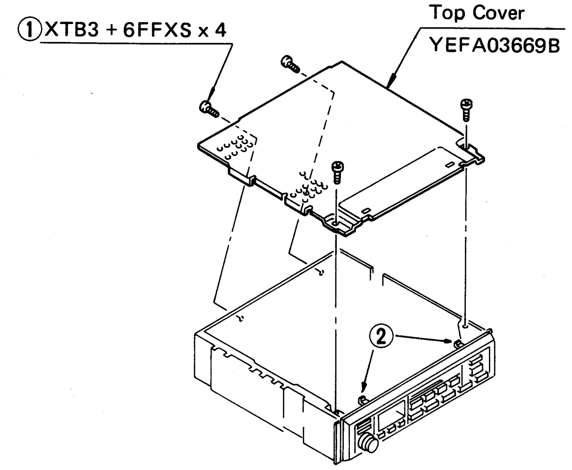

2 4 6 8 10 12 14 16 18 20 22
COMP In
Mute SW
COMP Out
BK/DK In
GND
BK/DK Out
114KHz
SK ON/OFF
VCO Stop SW
VCO Stop SW
456 KHz
MUTE
AM DET
LPF
OSC
57KHz LO°
FF
57KHz
FF
114KHz
FF
228 KHz
FF
PC
VCO STOP
Reac tance
PC
SK LOUT
LPF
Const. Volt.
DRIVER
VCC
—
—
—
PC
SK LED
114KHz
—
SK Sens Cont
LPF
LPF
1 3 5 7 9 11 13 15 17 19 21

DISASSEMBLY INSTRUCTIONS/ANWEISUNGEN FÜR DER AUSBAV

COVER AND ESCUTCHEON ASS'Y REMOVAL

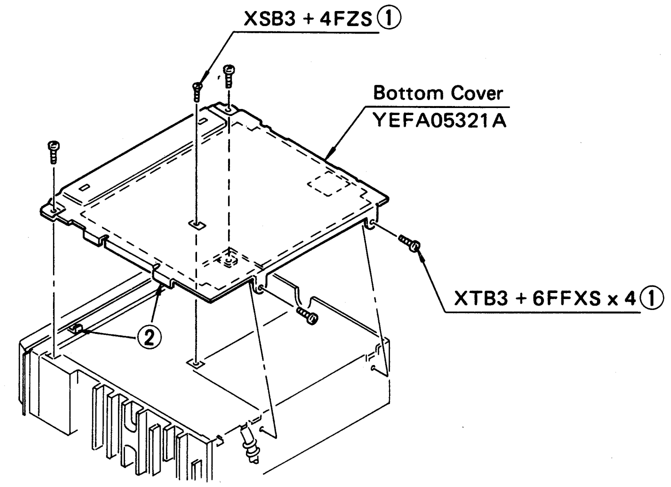
1. TOP COVER REMOVAL

① Removal the four screws.
② Take out the top cover by pushing two claws of the escutcheon.


①XTB3 + 6FFXS x 4
Top Cover
YEFA03669B
②

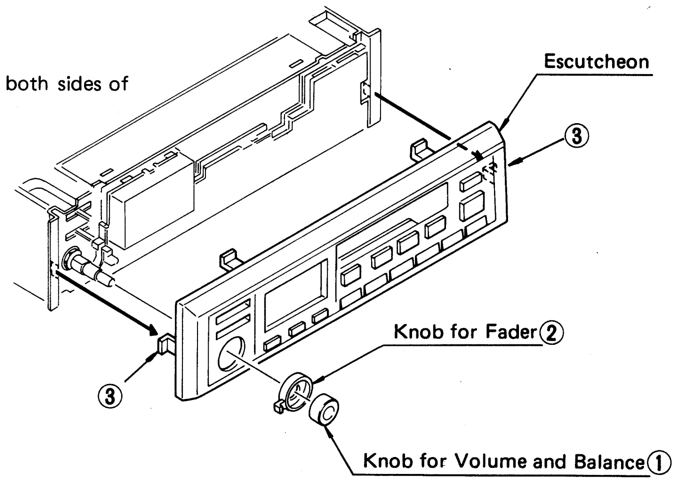
2. BOTTOM COVER REMOVAL

① Remove the five screws.
② Take out the bottom cover by pushing two claws of the escutcheon.


XSB3 + 4FZS①
Bottom Cover
YEFA05321A
XTB3 + 6FFXS x 4①
②

3. ESCUTCHEON ASS'Y REMOVAL

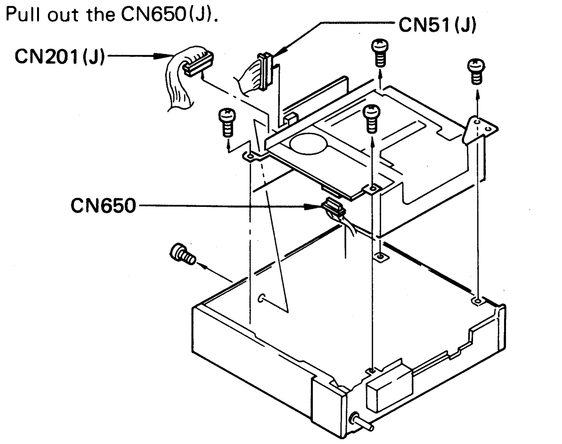
① Pull out the knob of volume and balance.
② Pull out the knob for fader.
③ Pull out the escutcheon by pushing two claws on both sides of the escutcheon.


Escutcheon
③
③
Knob for Fader②
Knob for Volume and Balance①

DECK REMOVAL

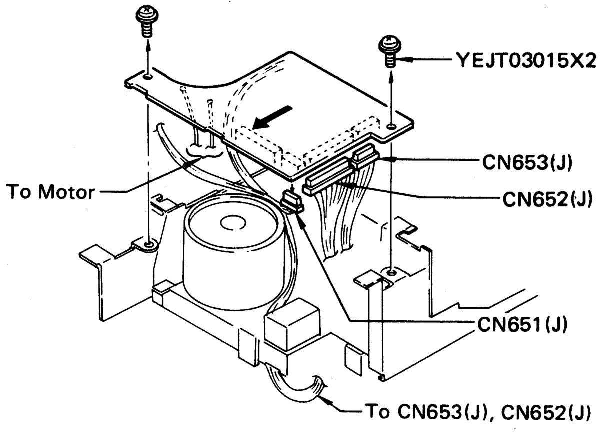
1. DECK ASS'Y REMOVAL

- Pull out the CN201(J), CN51(J).
- It can be removed after removing five screws and lifting the deck part.
- Pull out the CN650(J).


CN51(J)
CN201(J)
CN650

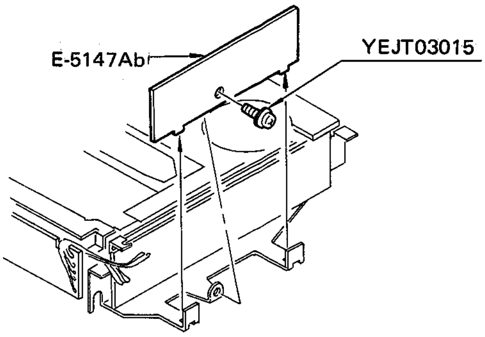
2. REMOVE THE P.C.B. (E-5147Ac)

- Pull out the CN651(J), CN652(J) and CN653(J).


YEJT03015X2
CN653(J)
CN652(J)
To Motor
CN651(J)
To CN653(J), CN652(J)

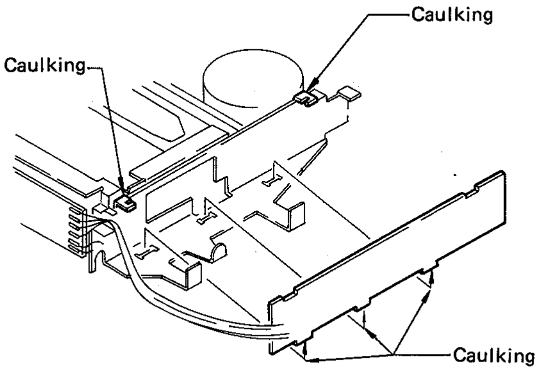
3. REMOVE THE P.C.B. (E-5147Ab)

- Remove the one screw.


E-5147Ab
YEJT03015

4. REMOVE THE P.C.B. (E-5147Aa)

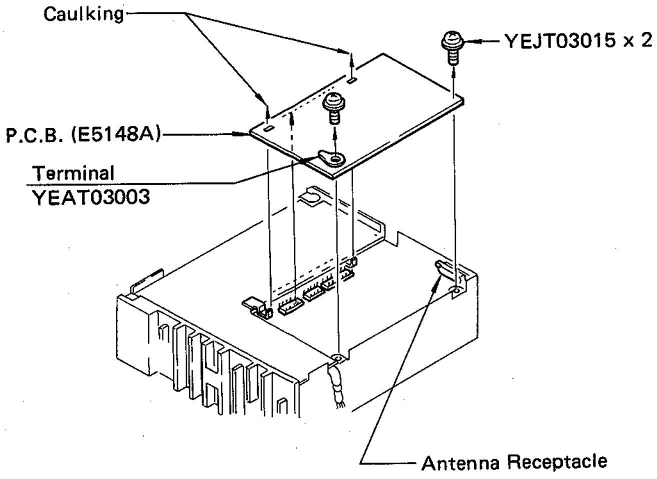
- Remove the five caulkings.


Caulking
Caulking
Caulking

RADIO CONTROL AND AUDIO PART REMOVAL

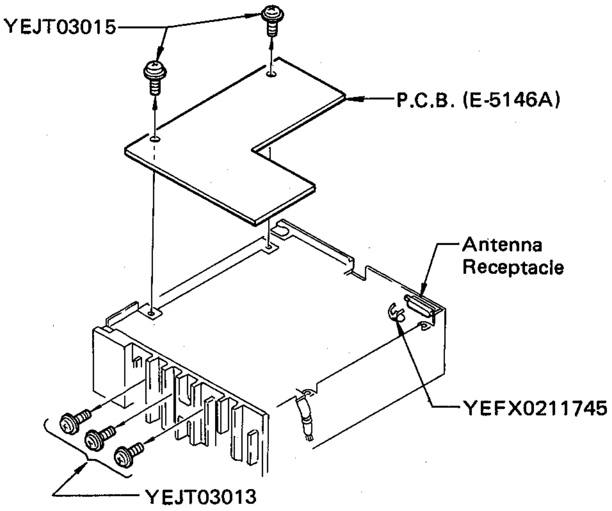
1. REMOVE THE RADIO P.C.B. (E-5148A)

- Remove the solder of P.C.B. (E-5148A).


Caulking
YEJT03015 x 2
P.C.B. (E5148A)
Terminal
YEAT03003
Antenna Receptacle

2. REMOVE THE CONTROL AND AUDIO P.C.B. (E-5146A)

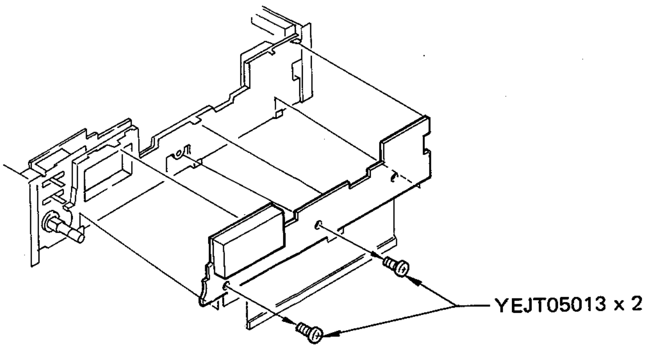
- Remove two screws of the P.C.B. (E-5147A).
- Remove the three screws of the heat sink.


YEJT03015
P.C.B. (E-5146A)
Antenna
Receptacle
YEFX0211745
YEJT03013

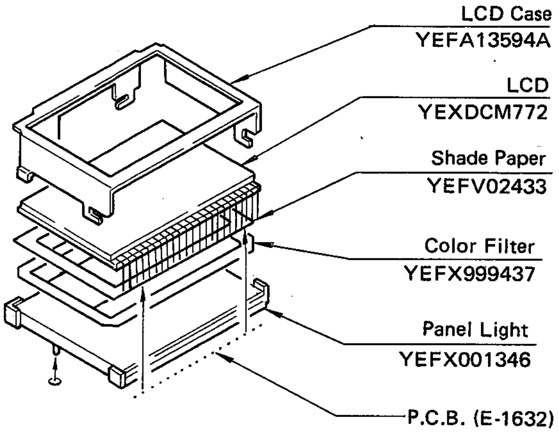
KEYBOARD P.C.B. REMOVAL

1. REMOVE THE KEY BOARD ASS'Y (E-1631, E-1632)

- Remove the solder of flexible P.C.B. (E-1631) from P.C.B. (E-5146A)
- Remove the three screws.

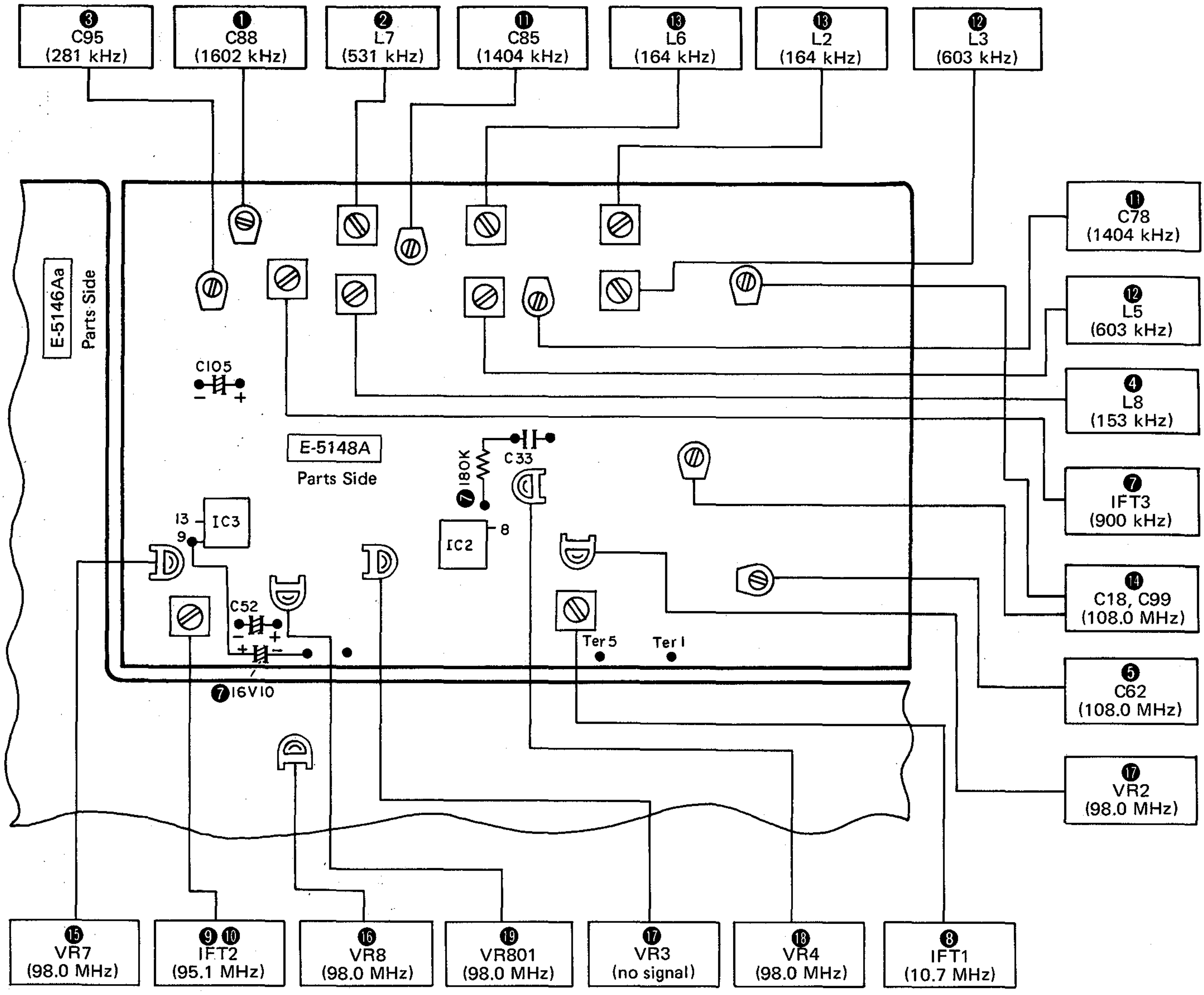

YEJT05013 x 2

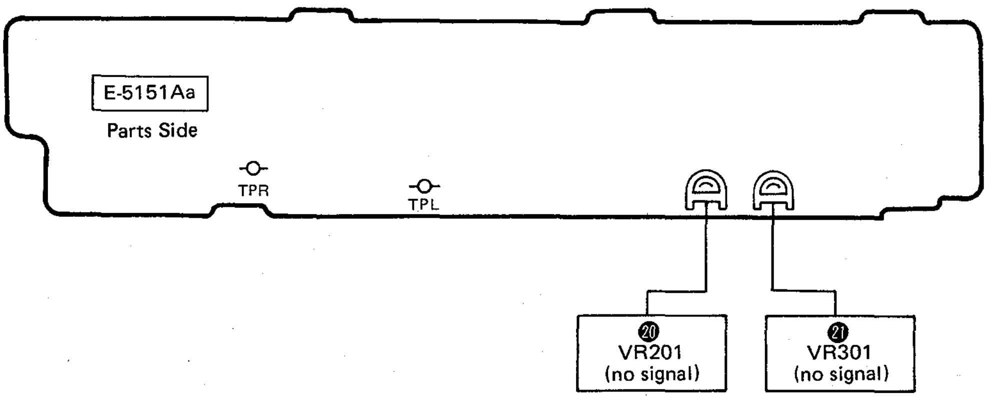
2. ASSEMBLE OF LCD


LCD Case
YEFA13594A
LCD
YEXDCM772
Shade Paper
YEFV02433
Color Filter
YEFX999437
Panel Light
YEFX001346
P.C.B. (E-1632)

ALIGNMENT POINTS/ABGLICHPUNKTE

(CQ-977EE/EG, CQ-978EG)


③ C95 (281 kHz)
① C88 (1602 kHz)
② L7 (531 kHz)
⑪ C85 (1404 kHz)
⑬ L6 (164 kHz)
⑬ L2 (164 kHz)
⑫ L3 (603 kHz)
⑪ C78 (1404 kHz)
⑫ L5 (603 kHz)
④ L8 (153 kHz)
⑦ IFT3 (900 kHz)
⑭ C18, C99 (108.0 MHz)
⑤ C62 (108.0 MHz)
⑰ VR2 (98.0 MHz)
E-5146Aa
Parts Side
C105
E-5148A
Parts Side
⑦ 180K
C33
13
9
IC3
IC2
8
C52
⑦16V10
Ter 5
Ter I
⑮ VR7 (98.0 MHz)
⑨⑩ IFT2 (95.1 MHz)
⑯ VR8 (98.0 MHz)
⑲ VR801 (98.0 MHz)
⑰ VR3 (no signal)
⑱ VR4 (98.0 MHz)
⑧ IFT1 (10.7 MHz)


E-5151Aa
Parts Side
TPR
TPL
⑳ VR201 (no signal)
㉑ VR301 (no signal)

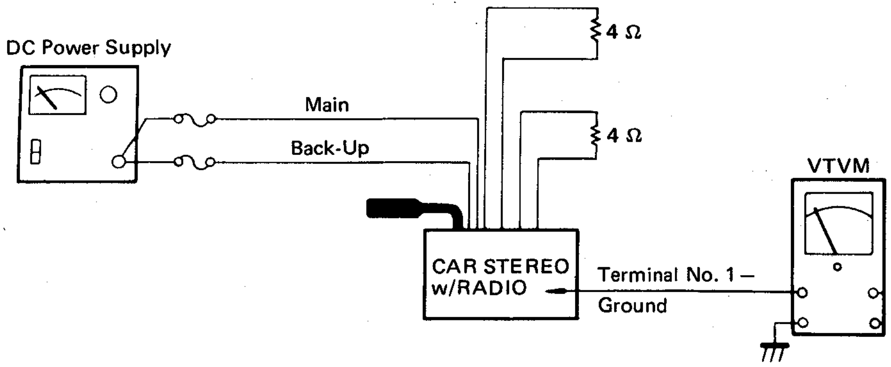
ALIGNMENT INSTRUCTIONS

(CQ-977EE/EG, CQ-978EG)

● Power supply voltage:	DC 14.4 V	● Fader control:	Center
● Output impedance:	4 Ω	● Tone control (Bass/Tre):	Center
● Output power:	0.5 W	● Loudness switch:	OFF
● Balance control:	Center	● Dolby NR:	OFF
● Volume control:	Set for 0.5 W output		

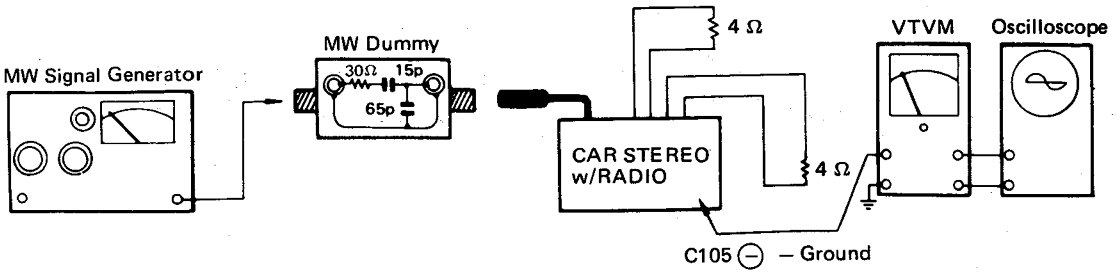
1. VARACTOR VOLTAGE ALIGNMENT

Step	Alignment Item	Band Selector	VTVM Connection	Display	Adjust	Remarks
1	MW VARACTOR VOLTAGE	MW	Terminal No. 1 (E5148A) – Ground	1602 kHz	C88	• Adjust for 9.0 V.
2				531 kHz	L7	• Adjust for 1.0 V. • Repeat steps 2 & 3 times, and finish at C88.
3	LW VARACTOR VOLTAGE	LW		281 kHz	C95	• Adjust for 5.0 V.
4				153 kHz	L8	• Adjust for 1V. • Repeat steps 2 & 3 times, and finish at C95.
5	FM VARACTOR VOLTAGE	FM		108.0 MHz	C62	• Adjust for 8.0 V.
6				87.5 MHz	—	• It is 0.7 V ~ 1.0 V.


DC Power Supply
Main
Back-Up
4 Ω
4 Ω
VTVM
CAR STEREO w/RADIO
Terminal No. 1 –
Ground

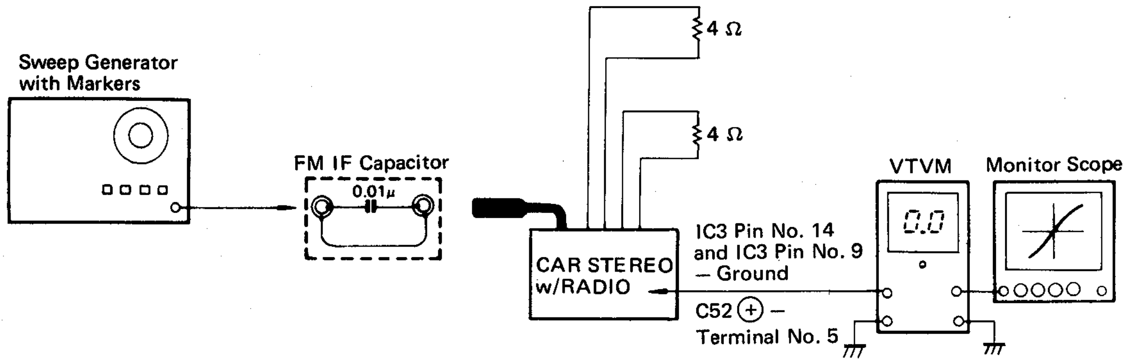
2. MW/LW IF ALIGNMENTE

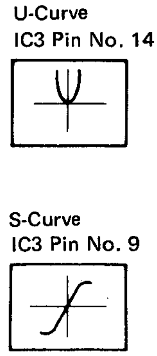
Step	Alignment Item	Band Selector	Signal Generator	Input Terminal	VTVM Connection	Frequency Display (Radio)	Adjust	Remarks
7	MW-IF LW-IF	MW LW	450 kHz [400 Hz Mod.]	Antenna receptacle	C105⊖ – Ground	900 kHz	IFT3	• Adjust for maximum.


MW Signal Generator
MW Dummy
30Ω
15p
65p
4 Ω
4 Ω
VTVM
Oscilloscope
CAR STEREO w/RADIO
C105 ⊖ – Ground

3. FM-IF ALIGNMENT

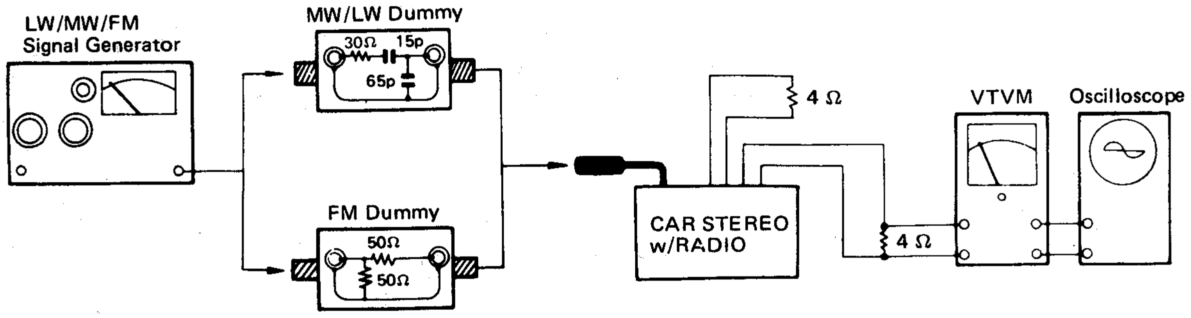
Step	Alignment Item	Band Selector	Signal Generator	Input Terminal	Monitor Scope Connection	Display	Adjust	Remarks
8	FM-IF	FM	10.7 MHz	Antenna receptacle	IC3 Pin No. 14 – Ground	95.1 MHz	IFT1	• Adjust for maximum amplitude and symmetrical curve.
9					IC3 Pin No. 9 – Ground		IFT2	• Adjust for maximum amplitude and proper linearity between about ±100 kHz markers.
10			98.0 MHz 54 dB/μV		C52⊕ – Terminal No. 5	98.0 MHz	IFT2	• Potential difference is 0 V.


Sweep Generator with Markers
FM IF Capacitor
0.01μ
4 Ω
4 Ω
CAR STEREO w/RADIO
IC3 Pin No. 14 and IC3 Pin No. 9 – Ground
C52 ⊕ – Terminal No. 5
VTVM
0.0
Monitor Scope


U-Curve
IC3 Pin No. 14
S-Curve
IC3 Pin No. 9

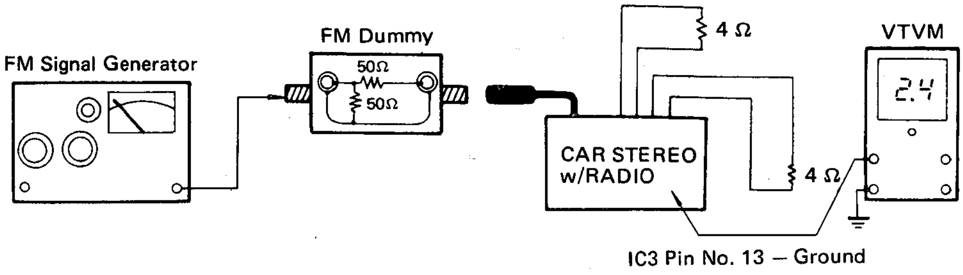
4. MW/LW/FM RF ALIGNMENT

Step	Alignment Item	Band Selector	Signal Generator	Input Terminal	VTVM Connection	Display	Adjust	Remarks
11	MW-RF	MW	1404 kHz [400 Hz Mod.]	Antenna receptacle	Speaker Terminals	1404 kHz	C78 C85	• Adjust for maximum. • Repeat steps 2 & 3 times, and finish at low frequency of each alignment item.
12			603 kHz [400 Hz Mod.]			603 kHz	L3 L5	
13	LW-RF	LW	164 kHz [400 Hz Mod.]			164 kHz	L2 L6	
14	FM-RF	FM	108.0 MHz [400 Hz Mod.]			108.0 MHz	C18 C99	


LW/MW/FM Signal Generator
MW/LW Dummy
30Ω
15p
65p
FM Dummy
50Ω
50Ω
4 Ω
CAR STEREO w/RADIO
4 Ω
VTVM
Oscilloscope

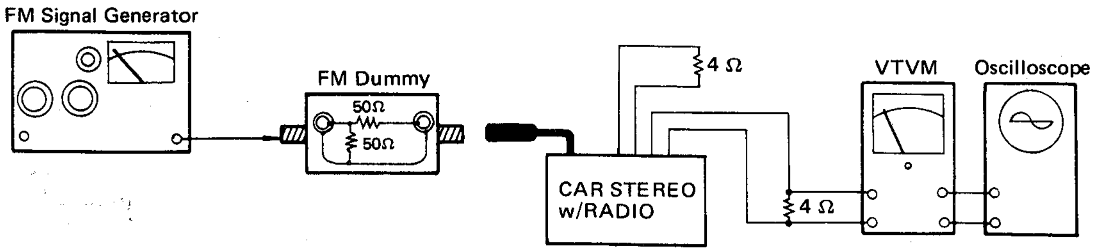
5. FM CONTROL VOLTAGE ALIGNMENT

Step	Alignment Item	Band Selector	Signal Generator	Input Terminal	VTVM Connection	Frequency Display (Radio)	Adjust	Remarks
15	FM CONTROL VOLTAGE	FM	98.0 MHz 24 dB/μV	Antenna receptacle	IC3 Pin No. 13 – Ground	98.0 MHz	VR7	• Adjust for 2.4 V.


FM Signal Generator
FM Dummy
50Ω
50Ω
4 Ω
VTVM
2.4
CAR STEREO w/RADIO
4 Ω
IC3 Pin No. 13 — Ground

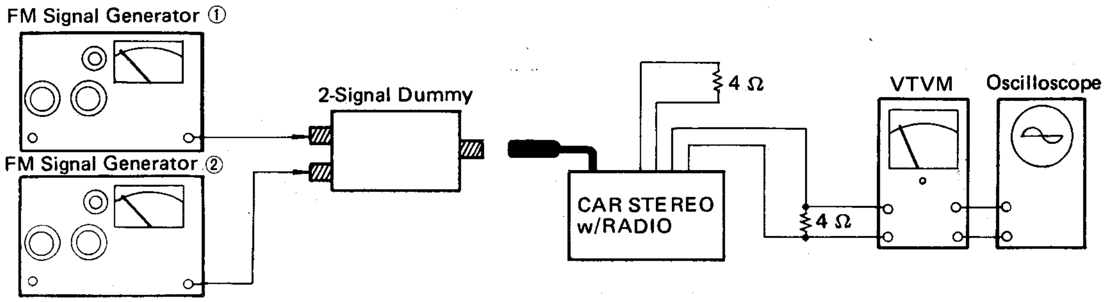
6. FM MUTING ALIGNMENT

Step	Alignment Item	Band Selector	Signal Generator	Input Terminal	VTVM Connection	Display	Adjust	Remarks
16	FM MUTING	FM	98.0 MHz 54 dB [400 Hz Mod.]	Antenna receptacle	Speaker Terminals	98.0 MHz	VR8	• Attenuate signal generator output to 0 dB. • Signal generator output to –20 dB. • Then –25 dB output at VR8.


FM Signal Generator
FM Dummy
50Ω
50Ω
4 Ω
VTVM
Oscilloscope
CAR STEREO w/RADIO
4 Ω

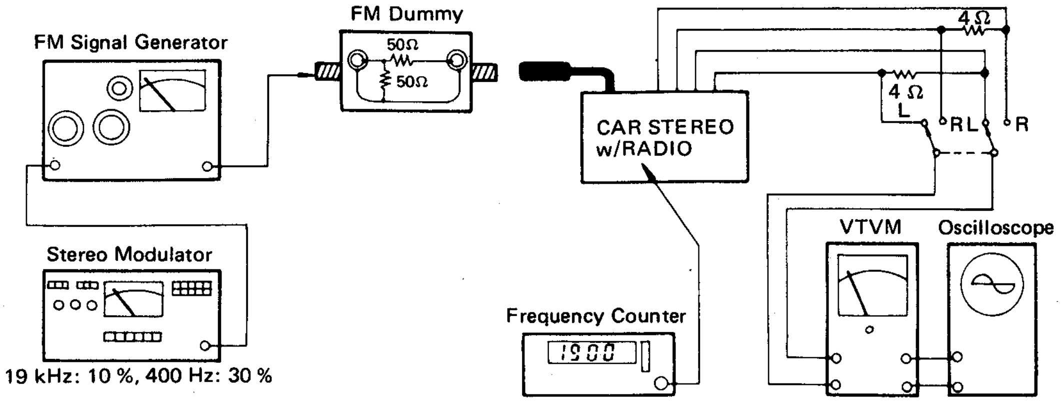
7. FM AGC ALIGNMENT

Step	Alignment Item	Band Selector	Signal Generator	Input Terminal	VTVM Connection	Display	Adjust	Remarks
17	FM AGC	FM	FM SG-1 98.0 MHz, 60 dB [400 Hz Mod.] FM SG-2 98.5 MHz, 100 dB [non-Mod.]	Antenna receptacle	Speaker Terminals	98.0 MHz	VR2	• Set volume control for 0.5 W output. • Attenuate signal generator output to 35 dB (μV) and adjust for –3 dB down output.


FM Signal Generator ①
FM Signal Generator ②
2-Signal Dummy
4 Ω
VTVM
Oscilloscope
CAR STEREO w/RADIO
4 Ω

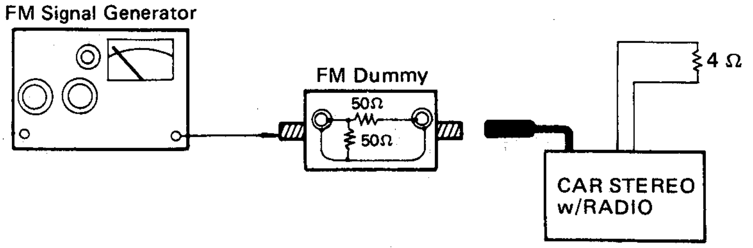
8. FM MULTIPLEX ALIGNMENT

Step	Align-ment Item	Band Selector	Signal Generator	Input Terminal	VTVM Connection	Display	Adjust	Remarks
17	FM MPX	FM	no signal	——	Frequency Counter IC2 Pin No. 8 – Ground (19 kHz)	——	VR3	• Connect a 10μ16V between IC3 Pin No. 9 and ground, connect a 180 kΩ between IC3 Pin No. 7 and ground. • Adjust for 19 kHz±30 Hz.
18			98.0 MHz 74 dB [400 Hz Mod.]	Antenna receptacle	Speaker Terminals	98.0 MHz	VR4	• Take off 10μ16V and 180 kΩ. • Adjust for maximum separation.


FM Signal Generator
FM Dummy
50Ω
50Ω
CAR STEREO w/RADIO
4 Ω
4 Ω
L
RL
R
Stereo Modulator
19 kHz: 10 %, 400 Hz: 30 %
Frequency Counter
1900
VTVM
Oscilloscope

9. FM SEARCH SENSITIVITY ALIGNMENT

Step	Align-ment Item	Band Selector	Signal Generator	Input Terminal	VTVM Connection	Display	Adjust	Remarks
19	FM SEARCH SENS.	FM	98.0 MHz 20 dB [400 Hz Mod.]	Antenna receptacle	——	98.0 MHz	VR801	• Adjust to stop search tuning 20 dB input. • DX use.


FM Signal Generator
FM Dummy
50Ω
50Ω
4 Ω
CAR STEREO w/RADIO

10. DOLBY NR ALIGNMENT

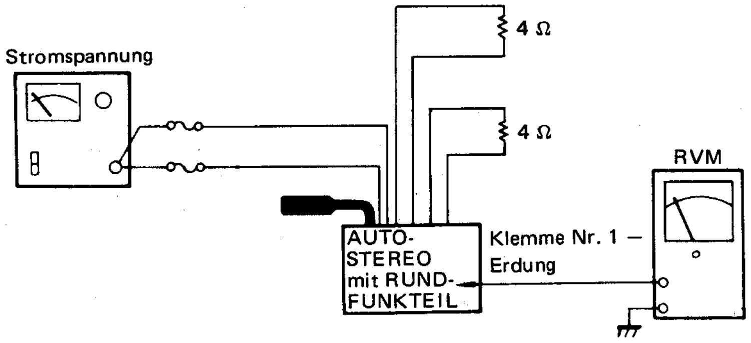
Step	Alignment Item	Test Tape	VTVM Connection	Adjust	Remarks
20	DOLBY NR	TCC-130	TPR – Ground	VR201	• Adjust for 300 mV (±0.5 dB).
21		TCC-130	TPL – Ground	VR301	• Adjust for 300 mV (±0.5 dB).

ABGLEICH-ANLEITUNG

- Stromspannung: DC 14,4 V
- Ausgangsimpedanz: 4 Ω
- Ausgangsleistung: 0,5 W
- Balanceregler: Mitte
- Lautstärkeregler: Auf 0.5 W einstellen
- Ausblendregler: Mitte
- Klangregler (Höen/Tiefen): Mitte
- Loudness-Schalter: Aus
- Dolby NR-Schalter: Aus

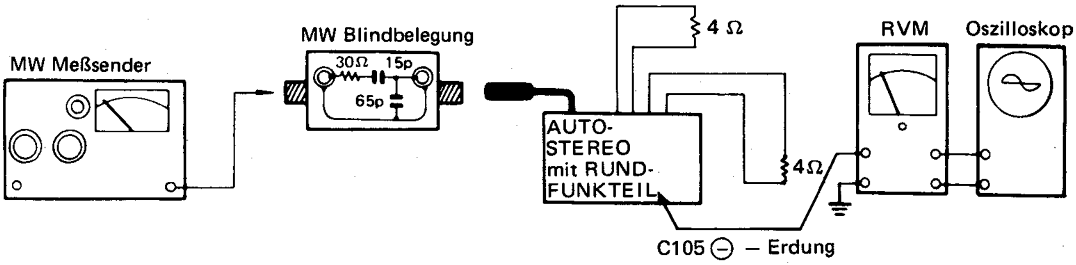
1. VARACTOR-ABGLEICH

Stufe	Abgleichobjekt	Stellung des Wellenbereich-umschalters	Anschluß des Anzeigeinstruments	Anzeige	Abgleich	Anmerkung
1	MW VARACTOR SPANNUNG	MW	Klemme Nr. 1 – Erdung	1602 kHz	C88	• Auf 9,0 V stellen.
2				531 kHz	L7	• Auf 1,0 V stellen. • Die Schritte 2 - 3 mal wiederholen und bei C88 aufhören.
3	LW VARACTOR SPANNUNG	LW		281 kHz	C95	• Auf 5,0 V stellen.
4				153 kHz	L8	• Auf 1,0 V stellen. • Die Schritte 2 - 3 mal wiederholen und bei C95 aufhören.
5	UKW VARACTOR SPANNUNG	UKW		108,0 MHz	C62	• Auf 8,0 V stellen.
6				87,5 MHz	—	• Es ist 0,7 V ~ 1,0 V.


Stromspannung
4 Ω
4 Ω
RVM
AUTO-STEREO mit RUND-FUNKTEIL
Klemme Nr. 1 – Erdung

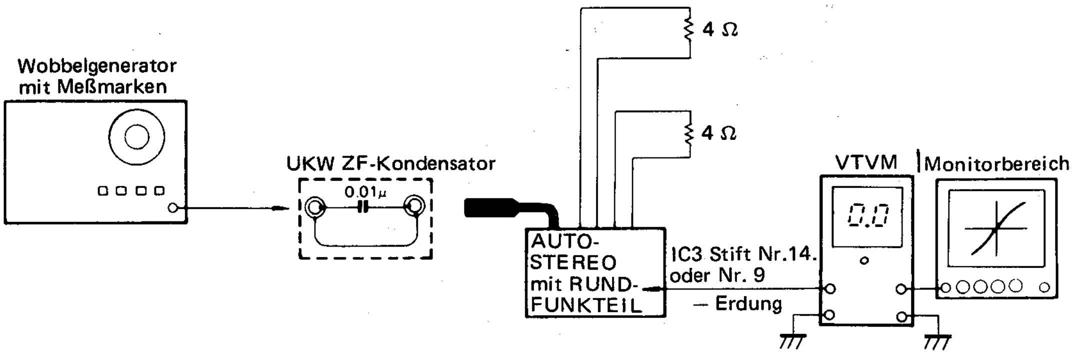
2. ABGLEICH VON MW/LW-ZF

Stufe	Abgleich-objekt	Stellung des Wellenbereich-umschalters	Meßsender-frequenz	Ankopplung des Meßsenders	Anschluß des Anzeige-instruments	Anzeige	Abgleich	Ammerkung
7	MW-ZF LW-ZF	MW LW	450 kHz [400 Hz Mod.]	Antennen-steckdose	C105⊖ – Erdung	900 kHz	IFT3	• Auf maximum stellen.

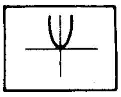

MW Meßsender
MW Blindbelegung
30Ω
15p
65p
4 Ω
RVM
Oszilloskop
AUTO-STEREO mit RUND-FUNKTEIL
4Ω
C105⊖ – Erdung

3. ABGLEICH VON UKW-ZF

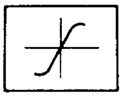
Stufe	Abgleich-objekt	Stellung des Wellenbereich-umschalters	Meßsender-frequenz	Ankopplung des Meßsenders	Anschluß des Monitor-bereich	Anzeige	Abgleich	Ammerkung
8	UKW ZF	UKW	10,7 MHz	Antennen-steckdose	IC3 Stift Nr. 14 – Erdung	95,1 MHz	IFT1	• Auf maximale amplitude und symmetrische Kurve einstellen.
9					IC3 Stift Nr. 9 – Erdung		IFT2	• Auf maximale Amplitude korrekte Linearität zwischen ±100 kH einstellen.
10			98,0 MHz 54 dB/μV		C52 ⊕ – Klemme Nr. 5	98,0 MHz	IFT2	• Potentialunterschied ist 0V.


Wobbelgenerator mit Meßmarken
UKW ZF-Kondensator
0.01μ
4 Ω
4 Ω
AUTO-STEREO mit RUND-FUNKTEIL
IC3 Stift Nr.14. oder Nr. 9
– Erdung
VTVM
0.0
Monitorbereich

U-Kurve
IC3 Stift Nr. 14

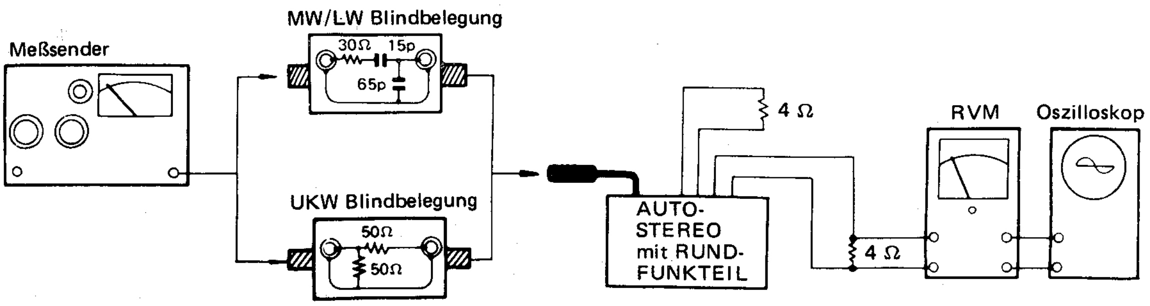


S-Kurve
IC3 Stift Nr. 9



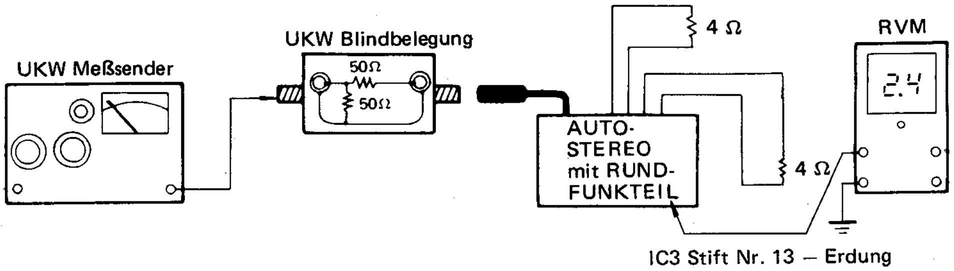
4. ABGLEICH VON MW/LW/UKW-HF

Stufe	Abgleich-objekt	Stellung des Wellenbereich-umschalters	Meßsender-frequenz	Ankopplung des Meßsenders	Anschluß des Anzeige-instruments	Anzeige	Abgleich	Ammerkung
11	MW-HF	MW	1404 kHz [400 Hz Mod.]	Antennen-steckdose	Lautsprecher-anschlüsse	1404 kHz	C78 C85	• Auf maximum stellen. • Die Schritte 2 - 3 mal wiederholen und bei der hohen Frequenz für jeden Ableichpunkt aufhören.
12			603 kHz [400 Hz Mod.]			603 kHz	L3 L5	
13	LW-HF	LW	164 kHz [400 Hz Mod.]			164 kHz	L2 L6	
14	UKW-HF	UKW	108,0 MHz [400 Hz Mod.]			108,0 MHz	C18 C99	


Meßsender
MW/LW Blindbelegung
30Ω
15p
65p
UKW Blindbelegung
50Ω
50Ω
4 Ω
AUTO-STEREO mit RUND-FUNKTEIL
4 Ω
RVM
Oszilloskop

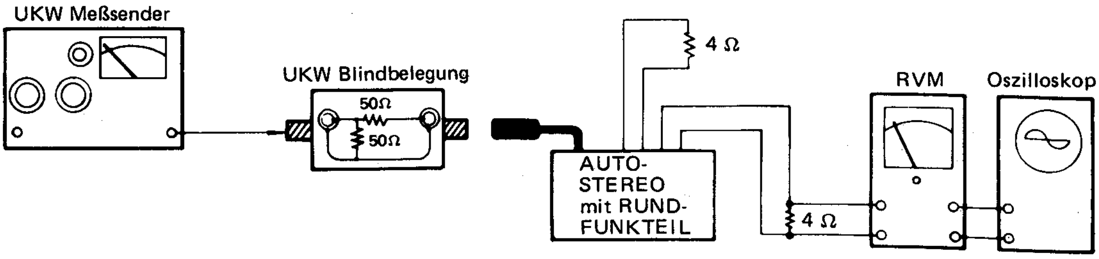
5. UKW STEUERSPANNUNGß-ABGLEICH

Stufe	Abgleich-objekt	Stellung des Wellenbereich-umschalters	Meßsender-frequenz	Ankopplung des Meßsenders	Anschluß des Anzeige-instruments	Anzeige	Abgleich	Ammerkung
15	UKW STEUER-SPANNUNGß	UKW	98,0 MHz 24 dB/μV	Antennen-Steckdose	IC3 Stift Nr. 13 – Erdung	98,0 MHz	VR7	• Auf 2,4 V stellen.


UKW Meßsender
UKW Blindbelegung
50Ω
50Ω
AUTO-STEREO mit RUND-FUNKTEIL
4 Ω
RVM
2.4
4 Ω
IC3 Stift Nr. 13 – Erdung

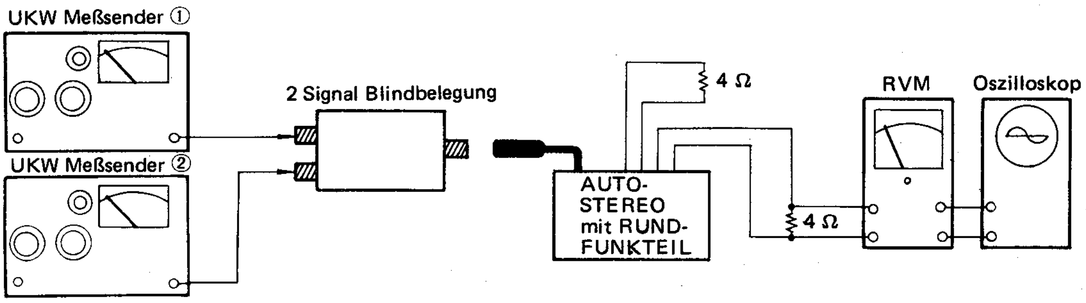
6. UKW STUMM ABGLEICH

Stufe	Abgleich-objekt	Stellung des Wellenbereich-umschalters	Meßsender-frequenz	Ankopplung des Meßsenders	Anschluß des Monitor-bereich	Anzeige	Abgleich	Ammerkung
16	UKW STUMM	UKW	98,0 MHz 54 dB [400 Hz Mod.]	Antennen-Steckdose	Lautsprecher anschlüsse	98,0 MHz	VR8	• Dämpfungs Signal generator Ausgang an 0 dB. • Signal generator Ausgang an –20dB. • Dann –25 dB an VR8.


UKW Meßsender
UKW Blindbelegung
50Ω
50Ω
AUTO-STEREO mit RUND-FUNKTEIL
4 Ω
4 Ω
RVM
Oszilloskop

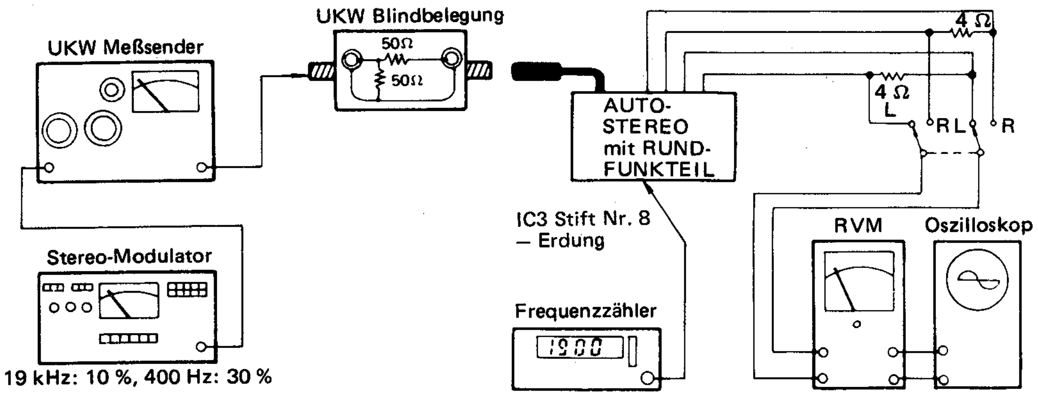
7. ABGLEICH VON UKW AGC

Stufe	Abgleich-objekt	Stellung des Wellenbereich-umschalters	Meßsender-frequenz	Ankopplung des Meßsenders	Anschluß des Anzeige-instruments	Anzeige	Abgleich	Ammerkung
17	UKW AGC	UKW	UKW-Meß-1 98,0 MHz 60 dB [400 Hz Mod.] UKW-Meß-2 98,5 MHz 100 dB [ohne Mod.]	Antennen-steckdose	Lautsprecher-anschlüsse	98,0 MHz	VR2	• Den Lautstärke-reglet auf 0,5 W einstellen. • Das Signal um 35 dB auf –3 dB däampfen.


UKW Meßsender ①
UKW Meßsender ②
2 Signal Blindbelegung
AUTO-STEREO mit RUND-FUNKTEIL
4 Ω
4 Ω
RVM
Oszilloskop

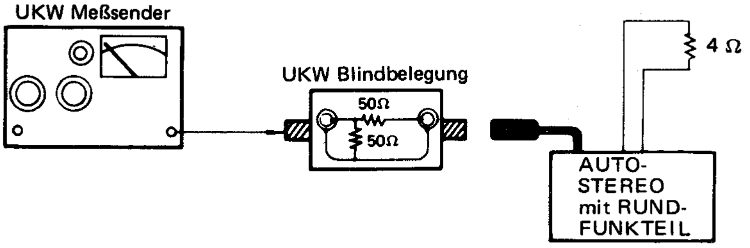
8. ABGLEICH VON UKW-MULTIPLEX

Stufe	Abgleich-objekt	Stellung des Wellenbereich-umschalters	Meßsender-frequenz	Ankopplung des Meßsenders	Anschluß des Anzeige-instruments	Anzeige	Abgleich	Ammerkung
17	UKW MPX	UKW	ohne signal	——	Frequenz Zähler IC2 Stift Nr. 8 – Erdung (19 kHz)	——	VR3	• 10μ16V Zwischen IC Pol Nr. 7 und Erde anschließen. • 180 kΩ Zwischen IC Pol Nr. 7 und Erde anschließen. • Auf 19 kHz ±30 kHz einstellen.
18			98,0 MHz 74 dB [400 Hz Mod.]	Antennen-steckdose	Lautsprecher-anschlüsse	98,0 MHz	VR4	• 10μ16V und 180 kΩ abnehmen. • Auf maximale Trennung einstellen.


UKW Meßsender
UKW Blindbelegung
50Ω
50Ω
AUTO-STEREO mit RUND-FUNKTEIL
4 Ω
4 Ω
L
R L
R
IC3 Stift Nr. 8 – Erdung
Frequenzzähler
19.00
RVM
Oszilloskop
Stereo-Modulator
19 kHz: 10 %, 400 Hz: 30 %

9. UKW SUCHEMPF INDDICHKEITS-EINSTELLUNG

Stufe	Abgleich-objekt	Stellung des Wellenbereich-umschalters	Meßsender-frequenz	Ankopplung des Meßsenders	Anschluß des Anzeige-instruments	Anzeige	Abgleich	Ammerkung
19	UKW SUCHEMPF IN-DDICHKEITS	UKW	98,0 MHz 20 dB [400 Hz Mod.]	Antennen-steckdose	——	98,0 MHz	VR801	• Auf stoppen des suchlaufs bei 20 dB Eingang einstellen. • DX verwendung.


UKW Meßsender
UKW Blindbelegung
50Ω
50Ω
4 Ω
AUTO-STEREO mit RUND-FUNKTEIL

10. DOLBY NR ABGLEICH

Stufe	Abgleich-objekt	Testband	Anschluß des Anzeige-instruments	Abgleich	Anmerkung
20	DOLBY NR	TCC-130	TPR – Erdung	VR201	• Auf 300 mV (±0,5 dB) stellen.
21		TCC-130	TPL – Erdung	VR301	• Auf 300 mV (±0,5 dB) stellen.

OPERATION OF AUTO-REVERSE MECHANISM/ BEDIENUNG DES AUTO REPLAY MECHANISMUS

This deck is a full-logic control cassette deck which the sequence-drive mechanism is controlled by a microcomputer.

1. Outline of Mechanism (Deck 61X)

One motor achieves Logic Control of this deck with the direction of its rotation. In addition, three solenoids (S1 ~ S3) are equipped in order to changeover the mechanism. Power of the motor is also used to load or eject cassette tape. There are seven sensors (such as switch) which enable the microcomputer to know the conditions of the mechanism.

- **Principle of Operation**

1. When S3 is on:
   The power of the motor is sent to LOAD/EJECT mechanism. When the motor rotates to the counterclockwise, the torque is sent to EJECT mechanism. When it rotates to the clockwise, the torque is sent to Load Mechanism.
2. When S3 is off and the motor rotates to the counter clockwise:
   The torque of the motor is sent to reel base and flywheels. Magnetic tape runs after setting PLAY, FF, or REW mode.
3. When S3 is off and the motor rotates to the clockwise:
   The torque of the motor is sent to cam to change the operation mode of the mechanisms. Mechanism changeover, which was done by pressing lever by finger previously, is now done by the power of the motor. Table 1-1 shows the operations of the motor and the solenoids at each mode.

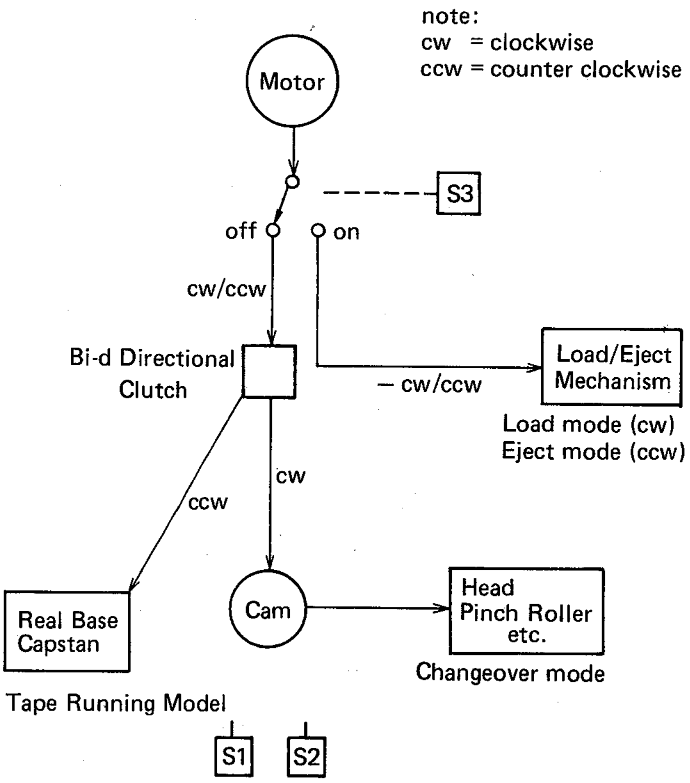

note:
cw = clockwise
ccw = counter clockwise
Motor
S3
off
on
cw/ccw
Bi-d Directional Clutch
– cw/ccw
Load/Eject Mechanism
Load mode (cw)
Eject mode (ccw)
cw
ccw
Real Base Capstan
Cam
Head Pinch Roller etc.
Changeover mode
Tape Running Model
S1
S2

Fig. 1-1 Block diagram of mechanism

Solenoid	Change over mode	Play	F/FF R/REW	F/REW R/FF	Load	Eject	Wait mode	Motor stop
S1	X	1	0	1	0	0	0	0
S2	X	1	1	0	0	0	0	0
S3	1	1	1	1	0	0	1	1
Motor	**CW**	**CCW**	**CCW**	**CCW**	**CW**	**CCW**	**Wait**	**Stop**
M1	1	0	0	0	1	0	0	1
M2	0	1	1	1	0	1	0	1

Table 1-1 operation of the motor and the solenoids.

* There must be 100 msec. interval stop during changes of the direction of the motor between clockwise and counter counterclockwise.

2. Operation of Microcomputer for Logic Control

A microcomputer controls all the mechanisms except time constant selection of tape equalizer (120, 70 μsec.) and mode selection of noise reduction (Dolby-B).
Figure 1-2 shows block diagram of the deck control system.

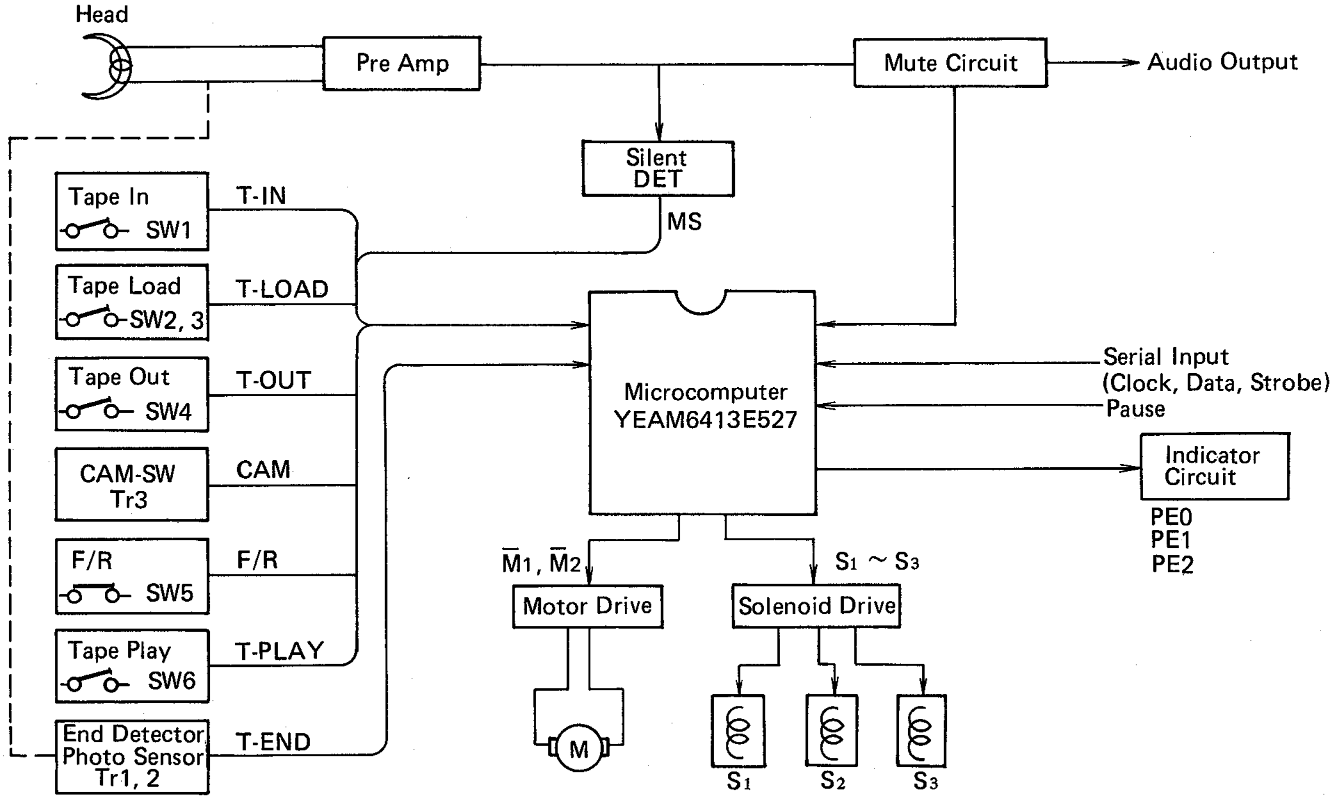

Head
Pre Amp
Mute Circuit
Audio Output
Silent DET
MS
Tape In SW1
T-IN
Tape Load SW2, 3
T-LOAD
Tape Out SW4
T-OUT
CAM-SW Tr3
CAM
F/R SW5
F/R
Tape Play SW6
T-PLAY
End Detector Photo Sensor Tr1, 2
T-END
Microcomputer YEAM6413E527
Serial Input (Clock, Data, Strobe)
Pause
Indicator Circuit
PE0
PE1
PE2
M̄1, M̄2
S1 ~ S3
Motor Drive
Solenoid Drive
M
S1
S2
S3

Fig. 2-1 Block diagram of the deck control system

3. MICROCOMPUTER YEAM6413E527

- **Names of terminals and discriptions of the functions**

Pin No.	Port	Name	In/Out	Discription
1	PD0	T-IN	Input	● Tape IN (SW1) The signal of this terminal indicates whether cassette tape is inserted into the mechanism or not. 0 = Cassette tape is inserted. 1 = Cassette tape is not inserted. This signal triggers Load mode operation.
2	PD1	CAM	Input	● CAM (CAM Signal Tr3) The signal of this termianl indicates position of cam. 0 = Changeover mode is completed. 1 = Changeover mode is not completed. This signal is used for detecting completion of changeover mode operation.
3	PD2	T-PLAY	Input	● Tape Play (SW6) The signal of this terminal indicates position of cam and whether the mechanism is at PLAY mode or not. 0 = At PLAY mode. 1 = Not at PLAY mode. At changeover mode, the signal indicates timing of control signals for the solenoids. At PLAY mode, it indicates that the mechanism is at PLAY mode.
4	PD3	MS	Input	● Silent Detector The signal of this terminal indicates whether there is sound on the tape or not. 0 = The tape is silent (between one music and another). 1 = There is sound on the tape. The signal is used for detecting music interval at TPS, SCAN, or REP mode operation.
5	EXtal	EXtal	Input	● External Clock Input Terminal

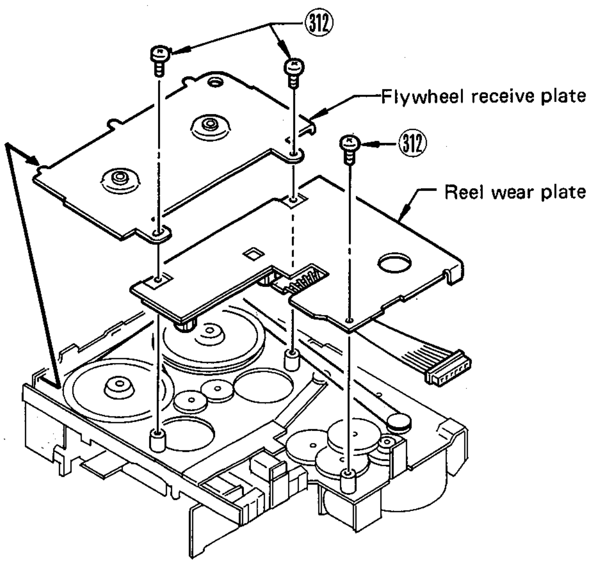
<table>
<tr><th>Pin No.</th><th>Port</th><th>Name</th><th>In/Out</th><th>Discription</th></tr>
<tr><td>6</td><td>Xtal</td><td>Xtal</td><td>Input
Output</td><td>● Terminal for connecting resonance circuit of the internal clock oscillator.</td></tr>
<tr><td>7</td><td>$\overline{\text{INT}}$</td><td>T-END</td><td>Input</td><td>● Tape End Detector
The signal of this terminal indicates pulse which accords with the rotation of reel base. This is used for detecting auto-reverse operation.</td></tr>
<tr><td>8</td><td>$\overline{\text{RES}}$</td><td>CE</td><td>Input</td><td>● Reset</td></tr>
<tr><td>9</td><td>PE0</td><td>Forward/Reverse</td><td rowspan="2">Output</td><td>● F/R
0 = Reverse Play. 1 = Forward Play.</td></tr>
<tr><td>10</td><td>PE1</td><td>FF</td><td>● FF
0 = At FF mode. 1 = Not at FF mode.</td></tr>
<tr><td>11</td><td>PE2</td><td>REW</td><td>LED Drive</td><td>● REW
0 = At REW mode. 1 = Not at REW mode.</td></tr>
<tr><td>12</td><td>PE3</td><td>MUTE</td><td>Output</td><td>● Mute
This is an output of mute signal which prevents noise during changeovers of the mechanism. 0 = MUTE off (at PLAY mode). 1 = MUTE on (not at PLAY mode).</td></tr>
<tr><td>13</td><td>TEST</td><td></td><td>Input</td><td>● Test terminal of this LSI. It is usually connected to V_{SS} (GND).</td></tr>
<tr><td>14</td><td>Vss</td><td></td><td></td><td>● Ground</td></tr>
<tr><td>15</td><td>PF0</td><td>$\overline{\text{M1}}$</td><td>Output</td><td rowspan="2">● Motor Control Output
<table>
<tr><th></th><th>Wait</th><th>CCW</th><th>CW</th><th>Stop</th></tr>
<tr><td>$\overline{M_1}$</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>$\overline{M_2}$</td><td>0</td><td>1</td><td>0</td><td>1</td></tr>
</table></td></tr>
<tr><td>16</td><td>PF1</td><td>$\overline{\text{M2}}$</td><td>Output</td></tr>
<tr><td>17</td><td>PF2</td><td>S1</td><td>Output</td><td rowspan="2">● Solenoid Control Output
<table>
<tr><th></th><th>Play</th><th>A-FF
B-REW</th><th>A-REW
B-FF</th><th>Wait Mode</th></tr>
<tr><td>S_1</td><td>1</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>S_2</td><td>1</td><td>1</td><td>0</td><td>0</td></tr>
</table></td></tr>
<tr><td>18</td><td>PF3</td><td>S2</td><td>Output</td></tr>
<tr><td>19</td><td>PG0</td><td>S3</td><td>Output</td><td>● Solenoid Control Output
<table>
<tr><th></th><th>Load Eject</th><th>Other Modes</th></tr>
<tr><td>$\overline{S_3}$</td><td>0</td><td>1</td></tr>
</table></td></tr>
<tr><td>20</td><td>VDD</td><td>Power in</td><td>Input</td><td>● Power Supply (+5 V)</td></tr>
<tr><td>21</td><td>PA0</td><td>T-LOAD</td><td>Input</td><td>● Tape Load (SW3)
The signal of this terminal indicates whether cassette tape is at PLAY position or not. 0 = Cassette tape is at PLAY position. 1 = Cassette tape is not at PLAY position. This signal is used for detecting the completion of LOAD mode operation.</td></tr>
<tr><td>22</td><td>PA1</td><td>T-OUT</td><td>Input</td><td>● Tape Out (SW4)
The signal of this terminal indicates whether cassette tape is ejected or not. 0 = Cassette tape is not ejected. 1 = Cassette tape is ejected. This signal is used for detecting the completion of EJECT mode operation.</td></tr>
<tr><td>23</td><td>PA2</td><td>Forward/Reverse</td><td>Input</td><td>● Forward/Reverse Detection (SW5)
0 = Forward Play. 1 = Reverse Play.</td></tr>
<tr><td>24</td><td>PA3</td><td></td><td>Input</td><td>● Input Terminal of Initial Data</td></tr>
<tr><td>25</td><td>PC0</td><td>CLOCK</td><td rowspan="4">Input</td><td rowspan="3">● Serial Input</td></tr>
<tr><td>26</td><td>PC1</td><td>DATA</td></tr>
<tr><td>27</td><td>PC2</td><td>STROBE</td></tr>
<tr><td>28</td><td>PC3</td><td>Pause</td><td>● Pause Input</td></tr>
</table>

SERVICING OF CASSETTE DECK/
WARTUNGSHIN WEISE FÜR DAS CASSETTE

For the replacement of cassette deck components follow the "DISASSEMBLY INSTRUCTIONS" which is written on page 40 ~ 41 and then perform the following procedures.

REPLACEMENT (LOWER PORTION)

Unscrew 2 set screws (312) to remove the flywheel receive plate and reel wear plate from the chassis. The following parts can be replaced.

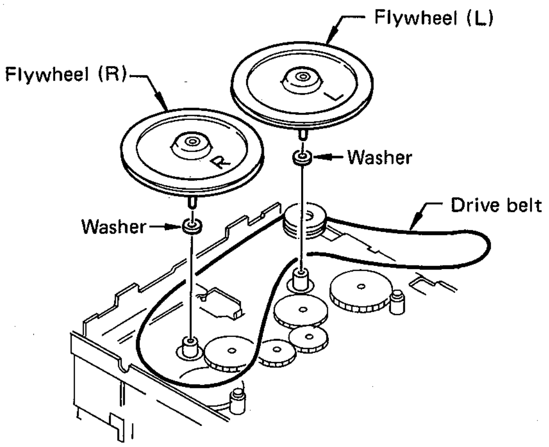

(312)
Flywheel receive plate
(312)
Reel wear plate

Flywheel:

- Replace the (R) or (L) of the old flywheel with a new one.

Note:

For replacement of the flywheel alone just remove the flywheel wear plate. However, to replace the flywheel it shall be necessary to reassemble the drive belt. Perform the replacement work by removing the reel wear plate ass'y.

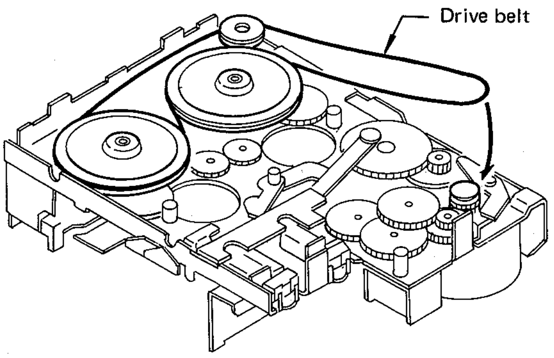

Flywheel (L)
Flywheel (R)
Washer
Drive belt
Washer

Drive belt:

- Remove the broken or faulty drive belt. Make sure that small broken pieces of the belt do not remain inside the deck.
- Apply the new belt as shown in the figure.

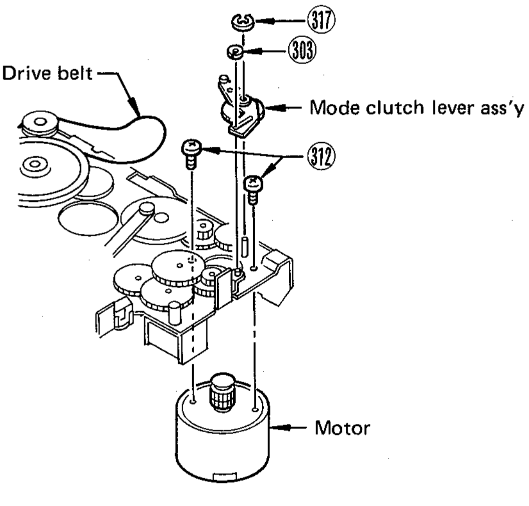
Note:

Apply the belt so as not to twist it. After the belt application is completed, confirm that the belt is normally applied by turning to left (L) or right (R) of the flywheel with your fingertip.



Motor:

- Remove the E ring (317) and the snap ring (303), then take away the mode clutch lever ass'y from the chassis.
- Replace the old motor with a new one and tighten the 2 set screws (312).
- After the belt has been applied, the mode clutch lever ass'y is assembled as before.

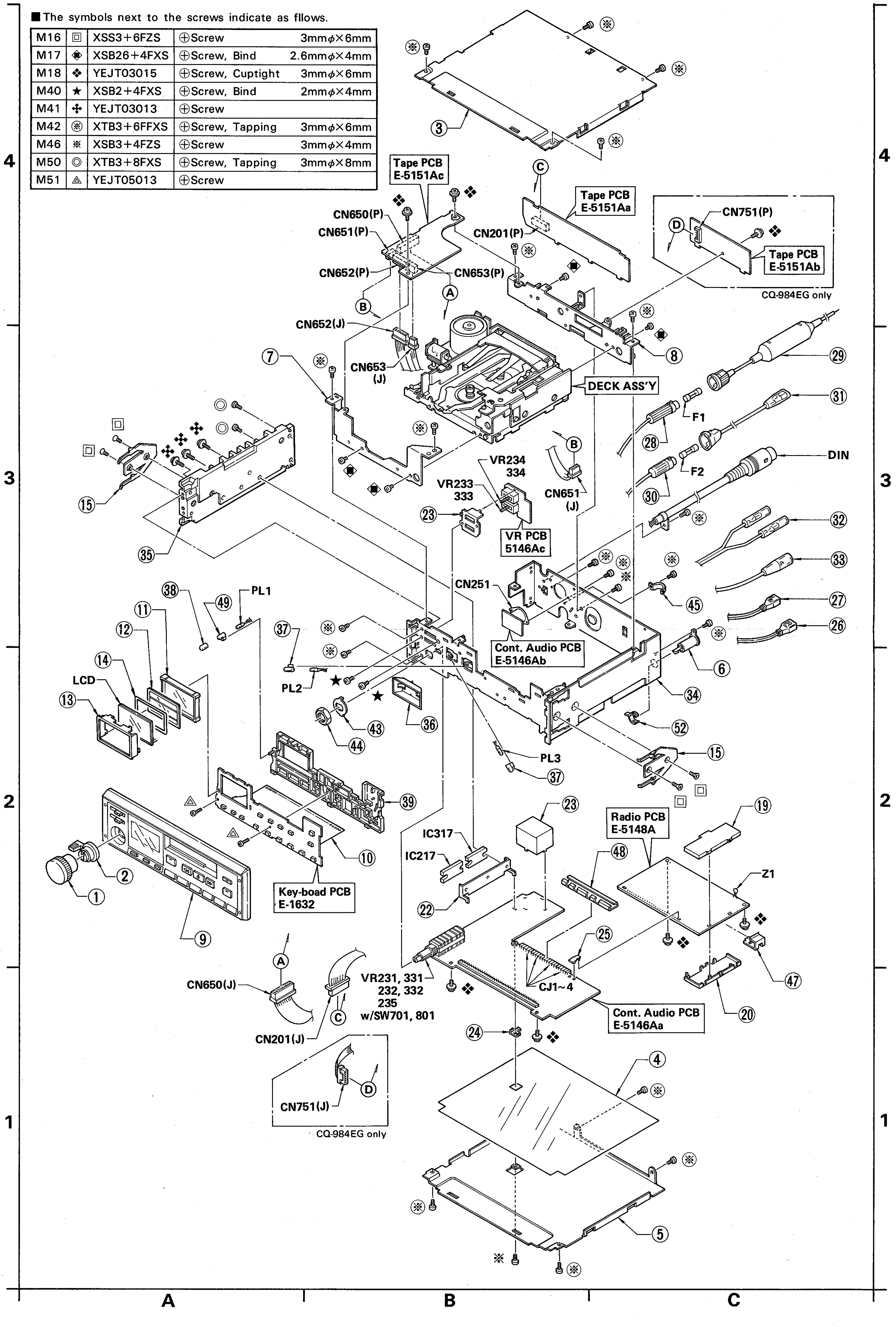

(317)
(303)
Drive belt
Mode clutch lever ass'y
(312)
Motor

EXPLODED VIEW(UNIT)/AUFGELÖSTE DARSTELLUNGS(GANZES GERÄT) (CQ-983EE/EG, CQ-984EG)

- Numbers in ○ are indicated REF. No. in the REPLACEMENT PARTS LIST.

■ The symbols next to the screws indicate as fllows.

M16	⊡	XSS3+6FZS	⊕Screw	3mmφ×6mm
M17	◆	XSB26+4FXS	⊕Screw, Bind	2.6mmφ×4mm
M18	❖	YEJT03015	⊕Screw, Cuptight	3mmφ×6mm
M40	★	XSB2+4FXS	⊕Screw, Bind	2mmφ×4mm
M41	✣	YEJT03013	⊕Screw	
M42	⊛	XTB3+6FFXS	⊕Screw, Tapping	3mmφ×6mm
M46	※	XSB3+4FZS	⊕Screw	3mmφ×4mm
M50	◎	XTB3+8FXS	⊕Screw, Tapping	3mmφ×8mm
M51	⚠	YEJT05013	⊕Screw	


4
3
2
1
A
B
C
③
Tape PCB E-5151Ac
CN650(P)
CN651(P)
CN652(P)
CN653(P)
Ⓐ
Ⓑ
CN652(J)
CN653 (J)
Ⓒ
Tape PCB E-5151Aa
CN201(P)
Ⓓ
CN751(P)
Tape PCB E-5151Ab
CQ-984EG only
⑧
㉙
DECK ASS'Y
㉛
F1
㉘
DIN
F2
㉚
⑦
⑮
㉟
VR234 334
VR233 333
㉓
CN651 (J)
VR PCB 5146Ac
㉜
㉝
CN251
㊺
㉗
㉖
Cont. Audio PCB E-5146Ab
⑥
㉞
㊾
PL1
㊳
⑪
⑫
⑭
LCD
⑬
㊲
PL2
㊸
㊹
㊱
㊷
PL3
㊲
⑮
㉓
Radio PCB E-5148A
⑲
㊴
⑩
Key-boad PCB E-1632
①
②
⑨
IC317
IC217
㉒
㊽
Z1
㉕
㊼
CN650(J)
CN201(J)
VR231, 331
232, 332
235
w/SW701, 801
CJ1~4
Cont. Audio PCB E-5146Aa
⑳
㉔
CN751(J)
CQ-984EG only
④
⑤

Replacement Parts List
Model NO. CQ-983EE/EG, CQ-984EG

NOTES:

1. Be sure to make your orders of replacement parts according to this list.
2. Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. Next to the Ref. No. in the parts list is a location key, to show the general location of the parts shown in the exploded drawing, as in a road map.

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
		MISCELLANEOUS		
Z1 (2-C)	ERZD03DS331	Varistor	1	
⚠ F1 (3-C)	XBB1C10NR1	Fuse, 1A	1	
⚠ F2 (3-C)	XBB1C50NS1	Fuse, 5A	1	
PL1 (3-A) PL2 (2-A)	YEAL30606WL	Pilot Lamp	2	
PL3 (2-B)	YEAL31010WL	Pilot Lamp	1	
CN201(P) (4-B)	EMCS0850ML	8P Plug	1	
CN201(J) (1-A)	EMCM0825D61	8P Jack	1	
CN650(P) (4-B)	EMCS0952M	9P Plug	1	
CN650(J) (1-A)	EMCM0920D61	9P Jack	1	
CN651(P) (4-B)	EMCS0352M	3P Plug	1	
CN651(J) (3-B)	EMCM0328D61	3P Jack	1	
CN652(P) (4-B)	EMCS0752M	7P Plug	1	
CN652(J) (3-B)	EMCM0710D61	7P Jack	1	
CN653(P) (4-B)	EMCS0352M	3P Plug	1	
CN653(J) (3-B)	EMCM0310D61	3P Jack	1	
CN650(P) (4-B)	EMCS1052M	10P Plug	1	CQ-984EG only
CN650(J) (1-A)	EMCM1020D61	10P Jack	1	CQ-984EG only
CN751(P) (4-C)	EMCS1052ML	10P Plug	1	CQ-984EG only
CN751(J) (1-B)	EMCM1022D61	10P Jack	1	CQ-984EG only
CJ1 to 4 (1-B)	YEAE01341	Joint Connector	4	
DIN (3-C)	YEAE01358	8Pin DIN Connector	1	
CN251 (3-B)	YEAE01240	8Pin DIN Connector	1	
M1 (2-A)	YEFE02116	Knob, Volume	1	
M2 (2-A)	YEFE04078	Knob, Fader	1	
M3 (4-B)	YEFA03669A	Top Cover	1	

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
M4 (1-C)	YEFV01745A	Insulator	1	
M5 (1-C)	YEFA05321A	Bottom Cover	1	
M6 (2-C)	YEAA10024	Antenna Receptacle	1	
M7 (3-A)	YEFX0211708	Mounting Bracket (Deck Front)	1	
M8 (3-C)	YEFX0211709A	Mounting Bracket (Deck Rear)	1	
M9 (2-A)	YEP0FX666	Escutcheon Ass'y	1	CQ-983EE/EG only
	YEP0FX665	Escutcheon Ass'y	1	CQ-984EG only
M10 (2-B)	YEAP1631A	Flexible PCB	1	
M11 (3-A)	YEFX001346	LCD Panel Light	1	
M12 (3-A)	YEFX999437	Color Filter	1	
M13 (2-A)	YEFA13594A	Case for LCD	1	
M14 (2-A)	YEFV02433	Shade for LCD	1	
M15 (3-A)	YEFX0051011A	Spring	2	
M16 ⊡	XSS3 + 6FZS	⊕ Screw 3mmϕ x 6mm	4	
M17 ◈	XSB26 + 4FXS	⊕ Screw, Bind 2.6mmϕ x 4mm	4	
M18 ❖	YEJT03015	⊕ Screw, Cuptight 3mmϕ x 6mm	6	CQ-983EE/EG only
			7	CQ-984EG only
M19 (2-C)	YEFA13597	Case (Front END)	1	
M20 (1-C)	YEFA13598	Case (Front END)	1	
M21 (2-B)	YEFA13312	Case (L701)	1	
M22 (2-B)	YEFX0211527A	Mounting Bracket (IC217, 317)	1	
M23 (3-B)	YEFX0211718	Mounting Bracket (VR233, 234)	1	
M24 (1-B)	YEFX0211716	Mounting Bracket (Main PCB)	1	
M25 (2-C)	YEFX0211717	Mounting Bracket (Main PCB)	1	
M26 (3-C)	YEAJ04340B	Speaker Cord (R)	1	
M27 (3-C)	YEAJ04341B	Speaker Cord (L)	1	
M28 (3-C)	YEAJ01528	Power Supply Cord (ACC)	1	
M29 (3-C)	YEAJ01809	Power Supply Cord (ACC)	1	
M30 (3-C)	YEAJ01450	Power Supply Cord (Battery)	1	
M31 (3-C)	YEAJ01451	Power Supply Cord (Battery)	1	
M32 (3-C)	YEAJ01438	Power Supply Cord (Foot Switch)	1	
M33 (3-C)	YEAJ01168	Power Supply Cord (Motor Antenna)	1	
M34 (2-C)	YEFA01783A	Chassis	1	
M35 (3-A)	YEFF01421	Heat Sink	1	

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
M36 (2-B)	YEFX999493A	Reflection Plate	1	
M37 (3-A) (2-B)	YEFR04233	Illumination Cap	2	
M38 (3-A)	YEFR04159	Illumination Cap	1	
M39 (2-B)	YEFX018099A	Mounting Base	1	
M40 ✶	XSB2 + 4FXS	⊕ Screw, Bind 2mmϕ x 4mm	2	
M41 ✣	YEJT03013	⊕ Screw	3	
M42 ⊛	XTB3 + 6FFXS	⊕ Screw, Tapping 3mmϕ x 6mm	19	
M43 (2-B)	YEFX0211549	Mounting Bracket	1	
M44 (2-B)	YEJN01042	Nut	1	
M45 (3-C)	YEFX007082	Cord Clamper	1	
M46 ※	XSB3 + 4FZS	⊕ Screw, Bind 3mmϕ x 4mm	2	
M47 (1-C)	YEFX0211750	Mounting Bracket	1	
M48 (2-C)	YEFX007349A	Cord Clamper	1	
M49 (3-A)	YEFK04372	Holder	1	
M50 ◎	XTB3 + 8FXS	⊕ Screw, Tapping 3mmϕ x 6mm	2	
M51 ◬	YEJT05013	⊕ Screw	2	
M52 (2-C)	YEFX0211745	Mounting Bracket	1	

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
		TAPE PLAYER PARTS		
		HEAD		
H	YEAHHG442107	Playback Head	1	
		SWITCHES		
M1 (SW5)	YEAS07126	Auto-Reverse Switch	1	
M2 (SW2)	YEAS07135	Tape Load1 Switch	1	
M3 (SW6)	YEAS23138	Tape Play Switch	1	
M4 (SW1)	YEAS23140	Tape IN Switch	1	
M5 (SW4)	YEAS23141	Tape OUT Switch	1	
M6 (SW3)	YEAS23142	Tape Load2 Switch	1	
		MECHANICAL PARTS-UPPER PORTION		
M100	YEAP1622A	Head PCB	1	
M101	YEAX01053	Solenoid Plunger	1	
M102	YEFX005983	Spring, FR Gear Plate	2	
M103	YEFX005984	Spring, Head Chassis	1	
M104	YEFX005985	Spring, Lift Plate	1	
M105	YEFX005986	Spring, Pinch Roller	2	
M106	YEFX005987	Spring, Solenoid Plunger	1	
M107	YEFX005988	Spring, Head Adjust	1	
M108	YEFX005989	Pinch Roller Return Spring (L)	1	
M109	YEFX005990	Pinch Roller Return Spring (R)	1	
M110	YASAK01053	DC Motor Ass'y	1	
M111	YEFX005991A	Absorb Piece Plate Spring	1	
M112	YEFX005992	Spring, Pressure Plate	1	
M113	YEFX005993	Spring, Idler Gear Plate	1	
M114	YEFX005994	Spring, Selector Plate	1	
M115	YEFX005997	Spring	1	
M116	YEFX005998A	Spring, Cassette Detecting	1	

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
M117	YEFW05235	Roller	1	
M118	YEFW05220	Pinch Roller Arm Collar	2	
M119	YEFX233209	Switch Protector Plate	1	
M120	YEFX235112A	Guide Piece	1	
M121	YEFX999429	Steel Ball	1	
M122	YEFA01772	Head Chassis Ass'y	1	
M123	YEFX003294	FR Gear Plate Ass'y (L)	1	
M124	YEFX003296	FR Gear Plate Ass'y (R)	1	
M125	YEFX003298	Idler Gear Plate Ass'y	1	
M126	YEFX046792A	Program Selector Plate	1	
M127	YEFX218225	Pinch Roller Ass'y	2	
M128	YEFX249297	Pressure Arm (L) Ass'y	1	
M129	YEFX249299	Pressure Arm (R) Ass'y	1	
M130	YEFX233210	Cassette Pressure Plate	1	
M131	YEFX249301	Lift Plate (1) Ass'y	1	
M132	YEFX249303A	Lift Plate (2) Ass'y	1	
M133	YEFX239289	Cassette Guide Plate Sub Ass'y	1	
M134	YEFX235114	Cassette Guide	1	
M135	YEFX046798B	Switch Lever	1	
M136	YEAP1624B	P.C.B.	1	
M137	YEFX0051006	Spring, Switch Lever	1	
M138	YEFX046799	Carriage Ass'y	1	
M139	YEFX239293	Guide Plate	1	
M140	YEFX215114B	Hook	1	
M141	YEFX0051001	Spring	1	
M142	**YEFX233219**	**Holding Plate (For flexible P.C.B.)**	1	

MODELS CQ-983EE/EG, CQ-984EG

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
		MECHANICAL PARTS-LOWER PORTION		
M201	YEAX01054	Solenoid Plunger	2	
M202	YEFX005995	Spring, Selector	1	
M203	YEFW04071	Bearing Metal	2	
M204	YEFX005857	Absorb Piece Spring (1)	1	
M205	YEFR03057	Drive Belt	1	
M206	YEFX003281A	Idler Gear (A)	2	
M207	YEFX003282A	Idler Gear (B)	2	
M208	YEFX003283A	FR Gear	2	
M209	YEFX003284B	Drive Gear (1)	1	
M210	YEFX003285B	Drive Gear (2)	1	
M211	YEFX003287	Drive Gear	1	
M212	YEFX003288B	Loading Gear (1)	1	
M213	YEFX003289B	Loading Gear (2)	1	
M214	YEFX003290	Loading Gear (3)	1	
M215	YEFX003291	Loading Gear (4)	1	
M216	YEFX026104A	Idler Pulley	1	
M217	YEFX046780	H Link (L)	1	
M218	YEFX046781	H Link (R)	1	
M219	YEFX213178	Flywheel (L)	1	
M220	YEFX213179	Flywheel (R)	1	
M221	YEFX213180	Flywheel Receive Plate	1	
M222	YEFX999436A	Detecting Label	1	
M223	YEFA01770A	Chassis Ass'y	1	
M224	YEFX046807	Clutch Lever Ass'y	1	
M225	YEP0FX634	Plate Sub Ass'y	1	
M226	YEFX209222	Reel Ass'y (L)	1	
M227	YEFX209223	Reel Ass'y (R)	1	
M228	YEFX007338	Cord Clamp	1	
M229	YEFX0051004	Spring, Back-tention (L)	1	
M230	YEFX0051005	Spring, Back-tention (R)	1	

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
		SCREWS, WASHERS, SNAPRING & E-RINGS		
M301	YEJE01014	E-Ring	3	
M302	YEJW05013	Washer	1	
M303	YEFX014007	Snap Ring	13	
M304	YAJW05010	Polyslider	2	
M305	YEJW05038	Polyslider	1	
M306	YEJW05002	Washer	2	
M307	YEFX014019	Snap Ring	1	
M308	YEFX014008	Snap Ring	7	
M309	YEJE01004	E-Ring	13	
M310	XSB2 + 3FX	⊕ Screw, Bind 2mmφ x 3mm	6	
M311	XSB2 + 8FX	⊕ Screw, Bind 2mmφ x 8mm	1	
M312	XSB26 + 3FXS	⊕ Screw, Bind 2.6mmφ x 3mm	8	
M313	XSB26 + 3FX	⊕ Screw, Bind 2.6mmφ x 3mm	3	
M314	XYN2 + F4FXS	⊕ Screw w/Washer 2mmφ x 4mm	2	
M315	XYN2 + C4FXS	⊕ Screw w/Washer 2mmφ x 4mm	2	
M316	YEJS06048	⊕ Screw	2	
M317	XUC15FX	E-Ring	1	
M318	YEJS02012FZ	⊕ Screw 1.6mmφ x 8mm	1	
M319	XYN2 + C5FXS	⊕ Screw w/Washer 2mmφ x 5mm	2	
M320	XYN26 + C5FXS	⊕ Screw w/Washer 2.6mmφ x 5mm	2	
M321	**XWE2FX**		1	
M322	**XWG26FX**	Washer	2	

MODELS CQ-983EE/EG, CQ-984EG

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
		ICs AND TRANSISTORS		
		RADIO BLOCK		
IC1	AN7264C	FM Front END	1	
IC2	AN7466C	FM EIA & MPX	1	
IC3	AN7268C	FM IF Amp w/Detector	1	
IC4	YEAMUPC1296G	AM RF Amp, Conv., IF Amp w/Detector	1	
Q1	UN2213TW	DX/Loc Switching	1	
Q2	YEANK131LT2	FM RF Amp	1	
Q3	YEANC1623	FM ASC Switching	1	
Q4, 5	YEANC1623	Tape/Radio Mixing	2	
Q6	YEANA812	FM IF Switching	1	
Q7	2SC1684RST	AGC RF Amp	1	
Q8	YEAN2SK519	AGC RF Amp	1	
Q9	YEANC1623	DX/Loc Switching	1	
Q10	UN2213TW	DX/Loc Switching	1	
Q11, 12	2SD1030TW	LW/MW Switching	2	
Q13	YEANC1623	AM Switching	1	
		CONTROL AND AUDIO BLOCK		
IC216	YEAMUPD4052C	Switching	1	
IC217, 317	YEAMLA4460	AF Power Amp	2	
IC218	AN6552	AF Amp	1	
IC316	AN6552S	Bass/Tre Amp	1	
IC318	YEAMTK15021	CD Switching	1	
IC701	YEAMNJM78L05	Voltage Stabilizer	1	
IC753	YEAMUPD4001C	Switching	1	CQ-984EG only
IC801	YEAM1713G522	Microcomputer, LCD Driver	1	
IC802	YEAMPD4001BG	Switching	1	
IC803	YEAMUPD4001C	Switching	1	

EXPLODED VIEW(TAPE DECK)/AUFGELÖSTE DARSTELLUNGS(TONBAND GERÄT)

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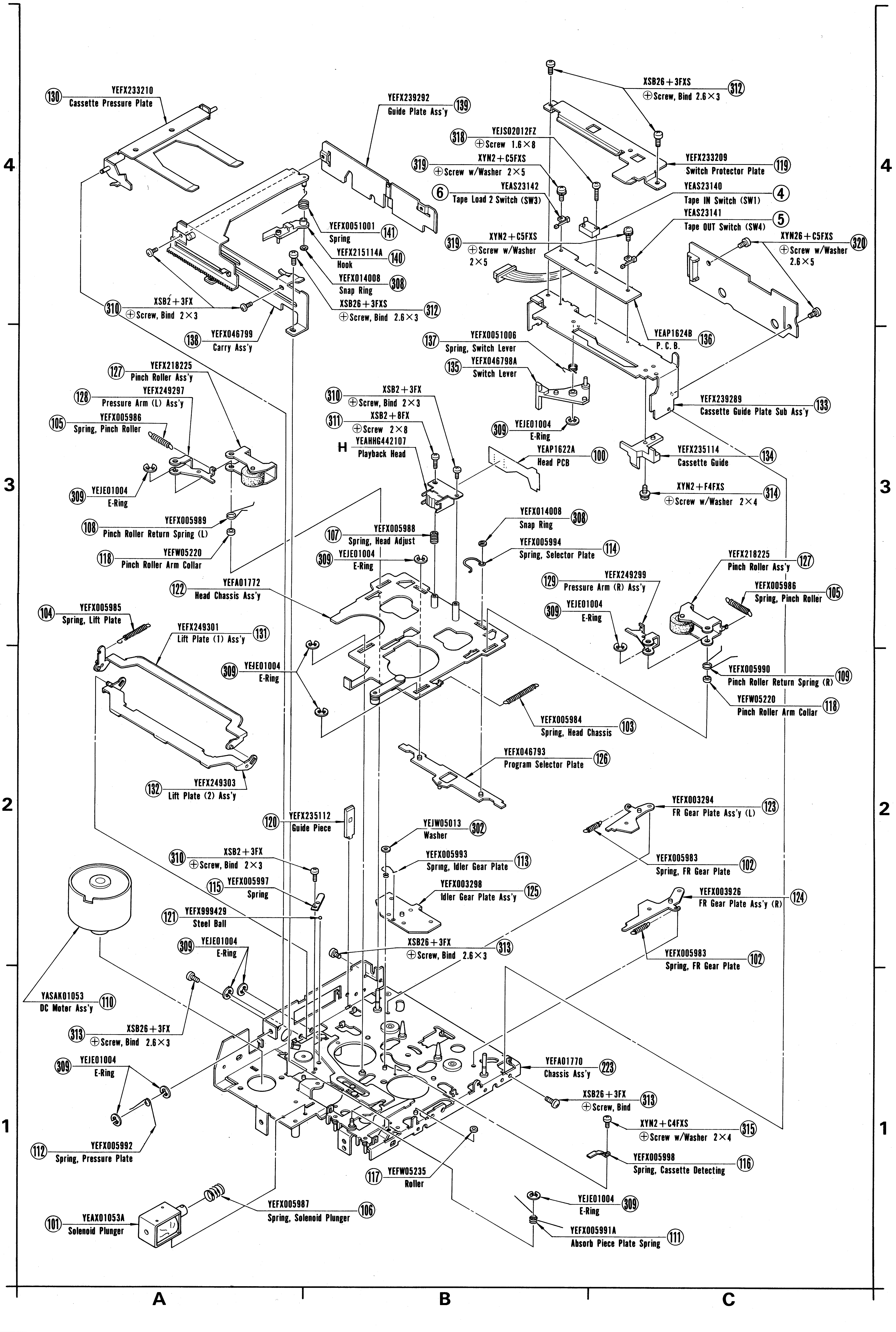
4
3
2
1
A
B
C
⑬⓪ YEFX233210 Cassette Pressure Plate
⑬⑨ YEFX239292 Guide Plate Ass'y
(312) XSB26+3FXS ⊕Screw, Bind 2.6×3
(318) YEJS02012FZ ⊕Screw 1.6×8
(319) XYN2+C5FXS ⊕Screw w/Washer 2×5
⑥ YEAS23142 Tape Load 2 Switch (SW3)
⑪⑨ YEFX233209 Switch Protector Plate
④ YEAS23140 Tape IN Switch (SW1)
⑤ YEAS23141 Tape OUT Switch (SW4)
(319) XYN2+C5FXS ⊕Screw w/Washer 2×5
(320) XYN26+C5FXS ⊕Screw w/Washer 2.6×5
⑭① YEFX0051001 Spring
⑭⓪ YEFX215114A Hook
(308) YEFX014008 Snap Ring
(312) XSB26+3FXS ⊕Screw, Bind 2.6×3
(310) XSB2+3FX ⊕Screw, Bind 2×3
⑬⑧ YEFX046799 Carry Ass'y
⑬⑥ YEAP1624B P. C. B.
⑬⑦ YEFX0051006 Spring, Switch Lever
⑬⑤ YEFX046798A Switch Lever
⑬③ YEFX239289 Cassette Guide Plate Sub Ass'y
⑫⑦ YEFX218225 Pinch Roller Ass'y
⑫⑧ YEFX249297 Pressure Arm (L) Ass'y
⑩⑤ YEFX005986 Spring, Pinch Roller
(310) XSB2+3FX ⊕Screw, Bind 2×3
(311) XSB2+8FX ⊕Screw 2×8
H YEAHHG442107 Playback Head
(309) YEJE01004 E-Ring
⑩⓪ YEAP1622A Head PCB
⑬④ YEFX235114 Cassette Guide
(314) XYN2+F4FXS ⊕Screw w/Washer 2×4
(309) YEJE01004 E-Ring
⑩⑧ YEFX005989 Pinch Roller Return Spring (L)
⑪⑧ YEFW05220 Pinch Roller Arm Collar
⑩⑦ YEFX005988 Spring, Head Adjust
(309) YEJE01004 E-Ring
(308) YEFX014008 Snap Ring
⑪④ YEFX005994 Spring, Selector Plate
⑫⑦ YEFX218225 Pinch Roller Ass'y
⑫⑨ YEFX249299 Pressure Arm (R) Ass'y
⑩⑤ YEFX005986 Spring, Pinch Roller
(309) YEJE01004 E-Ring
⑫② YEFA01772 Head Chassis Ass'y
⑩④ YEFX005985 Spring, Lift Plate
⑬① YEFX249301 Lift Plate (1) Ass'y
(309) YEJE01004 E-Ring
⑩⑨ YEFX005990 Pinch Roller Return Spring (R)
⑪⑧ YEFW05220 Pinch Roller Arm Collar
⑩③ YEFX005984 Spring, Head Chassis
⑫⑥ YEFX046793 Program Selector Plate
⑬② YEFX249303 Lift Plate (2) Ass'y
⑫③ YEFX003294 FR Gear Plate Ass'y (L)
⑫⓪ YEFX235112 Guide Piece
(302) YEJW05013 Washer
⑩② YEFX005983 Spring, FR Gear Plate
(310) XSB2+3FX ⊕Screw, Bind 2×3
⑪③ YEFX005993 Spring, Idler Gear Plate
⑪⑤ YEFX005997 Spring
⑫⑤ YEFX003298 Idler Gear Plate Ass'y
⑫④ YEFX003926 FR Gear Plate Ass'y (R)
⑫① YEFX999429 Steel Ball
(309) YEJE01004 E-Ring
(313) XSB26+3FX ⊕Screw, Bind 2.6×3
⑩② YEFX005983 Spring, FR Gear Plate
⑪⓪ YASAK01053 DC Motor Ass'y
(313) XSB26+3FX ⊕Screw, Bind 2.6×3
(309) YEJE01004 E-Ring
(223) YEFA01770 Chassis Ass'y
(313) XSB26+3FX ⊕Screw, Bind
(315) XYN2+C4FXS ⊕Screw w/Washer 2×4
⑪② YEFX005992 Spring, Pressure Plate
⑪⑥ YEFX005998 Spring, Cassette Detecting
⑪⑦ YEFW05235 Roller
⑩① YEAX01053A Solenoid Plunger
⑩⑥ YEFX005987 Spring, Solenoid Plunger
(309) YEJE01004 E-Ring
⑪① YEFX005991A Absorb Piece Plate Spring

EXPLODED VIEW(TAPE DECK)/AUFGELÖSTE DARSTELLUNGS(TONBANDGERÄT)

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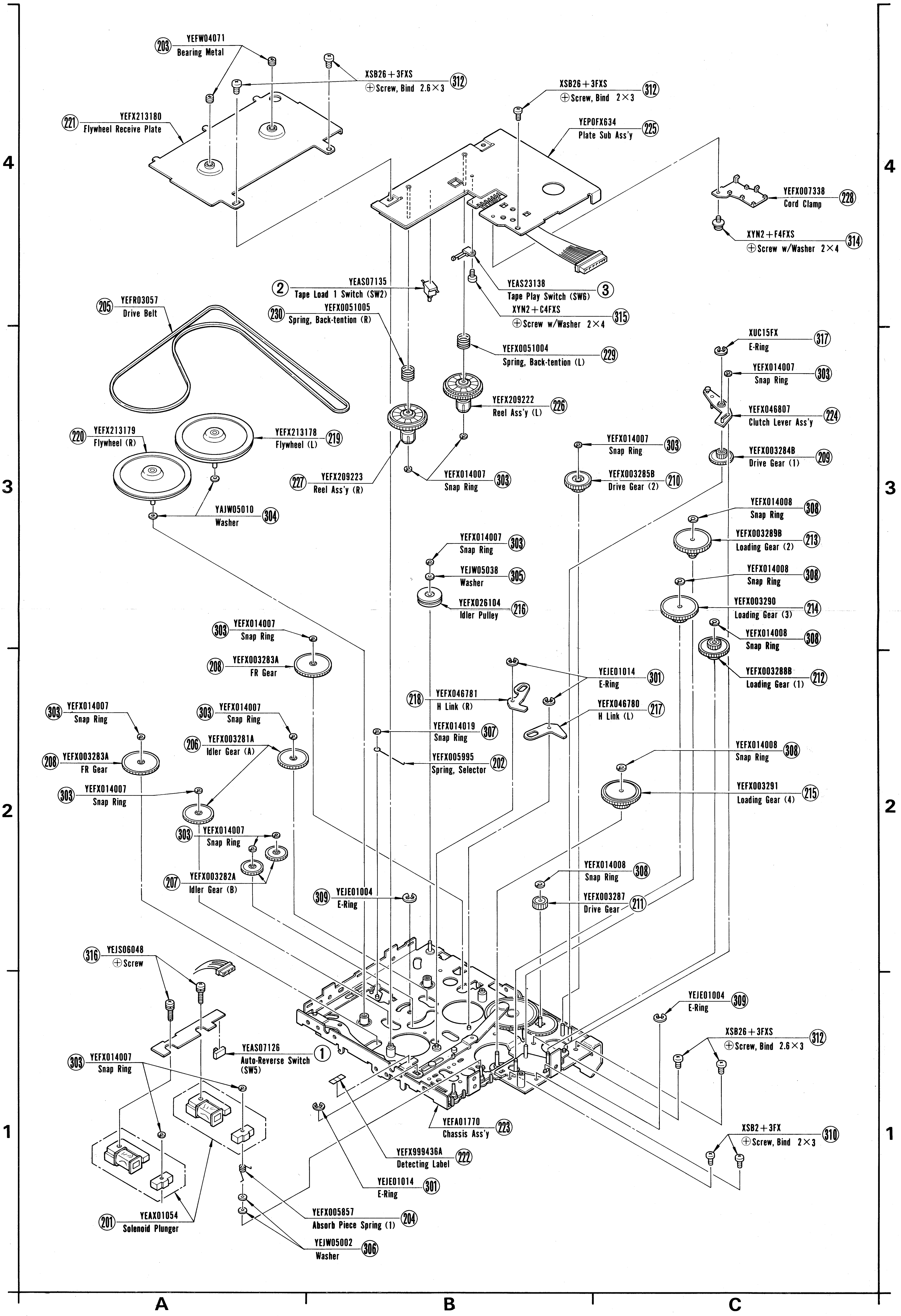
4
3
2
1
A
B
C
(203) YEFW04071 Bearing Metal
XSB26+3FXS ⊕Screw, Bind 2.6×3 (312)
XSB26+3FXS ⊕Screw, Bind 2×3 (312)
(221) YEFX213180 Flywheel Receive Plate
YEPOFX634 Plate Sub Ass'y (225)
YEFX007338 Cord Clamp (228)
XYN2+F4FXS ⊕Screw w/Washer 2×4 (314)
② YEAS07135 Tape Load 1 Switch (SW2)
YEAS23138 Tape Play Switch (SW6) ③
XYN2+C4FXS ⊕Screw w/Washer 2×4 (315)
(205) YEFR03057 Drive Belt
(230) YEFX0051005 Spring, Back-tention (R)
YEFX0051004 Spring, Back-tention (L) (229)
XUC15FX E-Ring (317)
YEFX014007 Snap Ring (303)
YEFX209222 Reel Ass'y (L) (226)
YEFX046807 Clutch Lever Ass'y (224)
(220) YEFX213179 Flywheel (R)
YEFX213178 Flywheel (L) (219)
YEFX014007 Snap Ring (303)
YEFX003284B Drive Gear (1) (209)
(227) YEFX209223 Reel Ass'y (R)
YEFX014007 Snap Ring (303)
YEFX003285B Drive Gear (2) (210)
YAJW05010 Washer (304)
YEFX014008 Snap Ring (308)
YEFX003289B Loading Gear (2) (213)
YEFX014007 Snap Ring (303)
YEJW05038 Washer (305)
YEFX014008 Snap Ring (308)
YEFX026104 Idler Pulley (216)
YEFX003290 Loading Gear (3) (214)
(303) YEFX014007 Snap Ring
YEFX014008 Snap Ring (308)
(208) YEFX003283A FR Gear
YEJE01014 E-Ring (301)
YEFX003288B Loading Gear (1) (212)
(218) YEFX046781 H Link (R)
(303) YEFX014007 Snap Ring
(303) YEFX014007 Snap Ring
YEFX046780 H Link (L) (217)
YEFX014019 Snap Ring (307)
(206) YEFX003281A Idler Gear (A)
(208) YEFX003283A FR Gear
YEFX005995 Spring, Selector (202)
YEFX014008 Snap Ring (308)
(303) YEFX014007 Snap Ring
YEFX003291 Loading Gear (4) (215)
(303) YEFX014007 Snap Ring
(207) YEFX003282A Idler Gear (B)
YEFX014008 Snap Ring (308)
(309) YEJE01004 E-Ring
YEFX003287 Drive Gear (211)
(316) YEJS06048 ⊕Screw
YEJE01004 E-Ring (309)
XSB26+3FXS ⊕Screw, Bind 2.6×3 (312)
YEAS07126 Auto-Reverse Switch (SW5) ①
(303) YEFX014007 Snap Ring
YEFA01770 Chassis Ass'y (223)
XSB2+3FX ⊕Screw, Bind 2×3 (310)
YEFX999436A Detecting Label (222)
YEJE01014 E-Ring (301)
(201) YEAX01054 Solenoid Plunger
YEFX005857 Absorb Piece Spring (1) (204)
YEJW05002 Washer (306)

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
IC804	YEAMUPD4081C	Switching	1	
IC805	YEAMUPD4094BC	Shift Store Bus Register	1	
IC806	YEAMUPD4094BC	Shift Store Bus Register	1	
Q220	YEANC1623	Switching	1	
Q221	YEANC1623	AF Amp	1	
Q222	YEAN2SK336	AF Amp	1	
Q223	2SD1030TW	Muting	1	
Q315	YEANDTC144S	Loudness Switching	1	
Q316	YEANC1623	Switching	1	
Q320	2SD636RST	Switching	1	
Q321	YEANC1623	AF Amp	1	
Q322	YEAN2SK336	AF Amp	1	
Q323	2SD1030TW	Muting	1	
Q701	2SC1383NC	Voltage Stabilizer	1	
Q702	YEAN2SA1175	LW/MW Switching	1	
Q703	YEAN2SA1175	FM Switching	1	
Q704	YEANDTC144S	FM Switching	1	CQ-983EE/EG only
Q706	2SB643	FM Switching	1	
Q707	YEANDTA144S	LW Switching	1	
Q708	YEANDTC144S	LW Switching	1	CQ-984EG only
Q709	YEAN2SD1020	Voltage Stabilizer	1	
Q711	YEAN2SA1175	MW Switching	1	
Q712	YEANDTC144S	MW Switching	1	
Q714	YEANC1623	LED Switching	1	
Q715	YEANC1623	LED Switching	1	
Q716	YEAN2SC2785	LED Switching	1	
Q717	YEANC1623	LED Switching	1	
Q718	YEANC1623	LED Switching	1	
Q801	YEANC1623	CE Control	1	
Q802	YEAN2SK336	Low Pass Filter	1	
Q803, 804	YEAN2SC2785	CE Control, Muting	2	
Q805	YEANDTA144S	Muting	1	
Q806	YEAN2SC2785	Seek Stop Control	1	

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
		TAPE BLOCK		
IC1	MN4069UBS	Switching	1	
IC51	YEAMTA7705F	Tape EQ Amp	1	
IC215	YEAMLA2000S	TPS Control	1	
IC216	YEAMCX20077	Dolby NR	1	
IC217	YEAMCX20078	Dolby NR	1	
IC651	YEAM6413E527	Microcomputer	1	
IC652	YEAMM54544L	Motor Control	1	
IC653	YEAMNJM78L05	Voltage Stabilizer	1	
IC654	YEAMUPC78M10	Voltage Stabilizer	1	
IC751	AN6552	OP Amp (BK, DK)	1	CQ-984EG only
IC752	YEAMLA2220	Trafic Recorder (SK)	1	CQ-984EG only
TR1, 2, 3	YEADGP2S06AB	Photo Coupler	3	
Q215	YEAN2SD1020	Power Control	1	
Q216	YEAN2SA1175	Voltage Stabilizer	1	
Q217	YEAN2SC2785	Voltage Stabilizer	1	
Q218	YEANDTC124K	Switching	1	
Q219	YEANDTC144S	Switching	1	
Q651	YEANDTA144S	Solenoid Control	1	
Q652, 653	YEAN2SC3068	Solenoid Control	2	
Q654	2SD966PQR	Solenoid Control	1	
Q655	YEANC1623	Switching	1	
Q751, 752	YEAN2SC2785	BK/DK Control	2	CQ-984EG only
Q753	YEANDTC144S	Switching	1	CQ-984EG only

DIODES

RADIO BLOCK

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
D1 to 3	YEADKV1340AS	AM Variable Capacitance Diode	3	
D4	MA153TX		1	
D7	MA151KTX		1	
D8	MA151ATW		1	
D9	MA151KTX		1	
D10	MA153TW		1	
D12, 15, 16	YEAD35Z3R3	FM Variable Capacitance Diode	3	
D14	MA153TW		1	
D17	YEADRD56JB3	Voltage Stabilizer	1	

CONTROL AND AUDIO BLOCK

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
D303	MA151KTW		1	
D701	YEADRD91EB2		1	
D702	MA165		1	
D706, 707	MA165		2	
D708	MA151KTW		1	
D709	YEAD10E2		1	
D710	YEADRD56JB3	Voltage Stabilizer	1	
D711	MA165		1	
D801	MA165		1	
D802	MA151KTW		1	
D803	MA165		1	
D804	MA165		1	CQ-984EG only
D805 to 816	MA165		12	
D817	MA151KTW		1	CQ-983EE/EG only
D818	MA165		1	
D819	MA1068MH	Voltage Stabilizer	1	
D820, 821	MA1051LM	Voltage Stabilizer	2	
D822	MA165		1	
D823, 824	MA165		2	
D825	MA165		1	

TAPE BLOCK

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
D200	YEADRD91EB2	Voltage Stabilizer	1	
D302, 303	MA151KTW		2	
D651, 652	MA165		2	
D653 to 655	YEAD10E2		3	
D751, 752	MA165		2	CQ-984EG only

LED BLOCK

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
D51, 62 to 65	LN01301C-QTA	LED	5	
D52 to 59	LN01801C-QTA	LED	8	
D66	LN01401C-TA	LED	1	
D60	YEADAA4524K	LED	1	

CAPACITORS

RADIO BLOCK

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
C1	YECUV1H180JM	18 PF 50WV Chip	1	
C2	YECUV1H100DM	10 PF 50WV Chip	1	
C3	YECUV1H080JM	8 PF 50WV Chip	1	
C5	YECUV1H150JM	15 PF 50WV Chip	1	
C6, 7	YECUV1H102KX	0.001 MFD 50WV Chip	2	
C8, 9	YECUV1H102KX	0.001 MFD 50WV Chip	2	
C11	YECUV1H080DM	8 PF 50WV Chip	1	
C12	YECUV1H020CM	2 PF 50WV Chip	1	
C13	YECUV1H100CM	10 PF 50WV Chip	1	
C14	YECUV1H103KX	0.01 MFD 50WV Chip	1	
C15, 16	YECUV1H103KX	0.01 MFD 50WV Chip	2	
C17	YECUV1H103KX	0.01 MFD 50WV Chip	1	
C19	YECUV1H103KX	0.01 MFD 50WV Chip	1	
C20	YECUV1H102KX	0.001 MFD 50WV Chip	1	
C21	YECUV1H050CM	5 PF 50WV Chip	1	
C22	YECUV1H390JM	39 PF 50WV Chip	1	
C23	YECUV1H020CM	2 PF 50WV Chip	1	
C24	YECUV1H390JM	39 PF 50WV Chip	1	
C25	YECUV1H102KX	0.001 MFD 50WV Chip	1	
C26	YECUV1H103KX	0.01 MFD 50WV Chip	1	
C27	ECEA1HKS010	1 MFD 50WV Electrolytic	1	
C28	YECUV1H103KX	0.01 MFD 50WV Chip	1	
C29	YECUV1E224ZF	0.22 MFD 25WV Chip	1	
C30	YECUV1E224ZF	0.22 MFD 25WV Chip	1	
C31	YECQP2A471JV	470 PF 100WV Polyester	1	
C32	ECSF1AE106	10 MFD 10WV Tantalum	1	
C33	ECEA1HKS010	1 MFD 50WV Electrolytic	1	
C34	YECUV1H103KX	0.01 MFD 50WV Chip	1	
C35	YECUV1H040CM	4 PF 50WV Chip	1	
C36	YECUV1H680JM	68 PF 50WV Chip	1	
C37	YECUV1H332KX	0.0033 MFD 50WV Chip	1	
C38	YECUV1H103KX	0.01 MFD 50WV Chip	1	
C39	YECUV1E473KX	0.047 MFD 25WV Chip	1	
C40	YECUV1H222KX	0.0022 MFD 50WV Chip	1	
C41	YECUV1H103KX	0.01 MFD 50WV Chip	1	
C42	ECEA1CKS100	10 MFD 16WV Electrolytic	1	
C43	ECEA1HKS010	1 MFD 50WV Electrolytic	1	
C44 to 46	YECUV1H223KX	0.022 MFD 50WV Chip	3	
C47	ECEA1CKS100	10 MFD 16WV Electrolytic	1	
C48, 49	YECUV1E224ZF	0.22 MFD 25WV Chip	2	
C50	ECEA1HKSR47	0.47 MFD 50WV Electrolytic	1	
C51	YECUV1H103KX	0.01 MFD 50WV Chip	1	
C52	YECUV1H050CM	5 PF 50WV Chip	1	
C53	YECUV1E333KX	0.033 MFD 25WV Chip	1	
C54, 55	YECUV1H223KX	0.022 MFD 50WV Chip	2	
C56	ECEA1HKSR22	0.22 MFD 50WV Electrolytic	1	
C57	YECUV1H221JM	220 PF 50WV Chip	1	
C58	YECUV1H223KX	0.022 MFD 50WV Chip	1	
C59	YECUV1H223KX	0.022 MFD 50WV Chip	1	
C60	YECUV1H223KX	0.022 MFD 50WV Chip	1	
C61	ECEA1HKS010	1 MFD 50WV Electrolytic	1	
C63, 64	YECUV1H223KX	0.022 MFD 50WV Chip	2	
C65	YECUV1H103KX	0.01 MFD 50WV Chip	1	
C66	YECUV1E104ZF	0.1 MFD 25WV Chip	1	
C67, 68	YECUV1H223KX	0.022 MFD 50WV Chip	2	
C69	YECUV1H103KX	0.01 MFD 50WV Chip	1	
C70	YECUV1E473KX	0.047 MFD 25WV Chip	1	
C71	ECEA1CKS100	10 MFD 16WV Electrolytic	1	
C72	ECEA1CKS100	10 MFD 16WV Electrolytic	1	
C73	YECUV1H223KX	0.022 MFD 50WV Chip	1	
C74	ECEA1CKS220	22 MFD 16WV Electrolytic	1	
C75	YECUV1H223KX	0.022 MFD 50WV Chip	1	
C77	YECUV1E473KX	0.047 MFD 50WV Chip	1	
C79	YECUV1H223KX	0.022 MFD 50WV Chip	1	

Ref. No.	Part No.	Part Name & Description			Pcs Set	Remarks
C80	YECUV1E473KX	0.047 MFD	50WV	Chip	1	
C81, 82	YECUV1H223KX	0.022 MFD	50WV	Chip	2	
C84	YECUV1E473KX	0.047 MFD	50WV	Chip	1	
C87	YECUV1H223KX	0.022 MFD	50WV	Chip	1	
C89	YECUV1H100DM	10 PF	50WV	Chip	1	
C90	YECUV1H271JM	270 PF	50WV	Chip	1	
C91	YECUV1H221JM	220 PF	50WV	Chip	1	
C92	YECUV1H271JM	270 PF	50WV	Chip	1	
C93	ECQV1H104JZ	0.1 MFD	50WV	Polyester	1	
C94	YECUV1H223KX	0.022 MFD	50WV	Chip	1	
C97	ECEA1AKS470	47 MFD	10WV	Electrolytic	1	
C98	YECUV1H103KX	0.01 MFD	50WV	Chip	1	
C100	ECSF1AE226	22 MFD	10WV	Tantalum	1	
C101	YECUV1H103KX	0.01 MFD	50WV	Chip	1	
C102	YECUV1E393KX	0.039 MFD	25WV	Chip	1	
C103	YECUV1E104ZF	0.1 MFD	25WV	Chip	1	
C104	YECUV1H103KX	0.01 MFD	50WV	Chip	1	
C105	ECEA1HKS010	1 MFD	50WV	Electrolytic	1	
C106	ECEA1AKS470	47 MFD	10WV	Electrolytic	1	
C108	YECUV1H223KX	0.022 MFD	50WV	Chip	1	
C109	YECUV1E473KX	0.01 MFD	25WV	Chip	1	
C110	YECUV1H103KX	0.01 MFD	50WV	Chip	1	
C111	ECSF1CE106	10 MFD	16WV	Tantalum	1	
C112	YECUV1H223KX	0.022 MFD	50WV	Chip	1	

CONTROL AND AUDIO BLOCK

Ref. No.	Part No.	Part Name & Description			Pcs Set	Remarks
C230	ECEA1HK010	1 MFD	50WV	Electrolytic	1	
C231	YECUV1H153KX	0.015 MFD	50WV	Chip	1	
C232	YECUV1H153KX	0.015 MFD	50WV	Chip	1	
C233	YECUV1H102KX	0.001 MFD	50WV	Chip	1	
C234	YECUV1H331JM	330 PF	50WV	Chip	1	
C235	ECEA1HKS010	1 MFD	50WV	Electrolytic	1	
C236	YECQZ1H472K	0.0047 MFD	50WV	Polyester	1	
C237	ECEA1HKSR33	0.33 MFD	50WV	Electrolytic	1	
C238	ECEA1CK100	10 MFD	16WV	Electrolytic	1	
C239	ECEA1HKS010	1 MFD	50WV	Electrolytic	1	
C240	YECUV1H102KX	0.001 MFD	50WV	Chip	1	
C241	YECUV1H103KX	0.01 MFD	50WV	Chip	1	
C242	ECEA1AS470	47 MFD	10WV	Electrolytic	1	
C243	ECEA1AS470	47 MFD	10WV	Electrolytic	1	
C244, 245	YECUV1E333KX	0.033 MFD	25WV	Chip	2	
C246	ECEA1CV102WX	1000 MFD	16WV	Electrolytic	1	
C247	YECUV1E104ZF	0.1 MFD	25WV	Chip	1	
C248	ECQV1H474JZ	0.47 MFD	50WV	Polyester	1	
C249	ECEA1HKS010	1 MFD	50WV	Electrolytic	1	
C250	ECEA1AKS330	33 MFD	10WV	Electrolytic	1	
C251	ECEA1CKS100	10 MFD	16WV	Electrolytic	1	
C252	ECEA1HKS010	1 MFD	50WV	Electrolytic	1	
C256	ECEA1HKS010	1 MFD	50WV	Electrolytic	1	
C257	ECEA1AS101	100 MFD	10WV	Electrolytic	1	
C258	ECEA1AU331	330 MFD	10WV	Electrolytic	1	
C261	ECEA1CKS100	10 MFD	16WV	Electrolytic	1	CQ-983EE/EG only
C318	ECEA0JU221	220 MFD	6WV	Electrolytic	1	
C319	ECEA1AK470	47 MFD	10WV	Electrolytic	1	CQ-984EG only
C330	ECEA1HK010	1 MFD	50WV	Electrolytic	1	
C331	YECUV1H153KX	0.015 MFD	50WV	Chip	1	
C332	YECUV1H153KX	0.015 MFD	50WV	Chip	1	
C333	YECUV1H102KX	0.001 MFD	50WV	Chip	1	

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
C334	YECUV1H331JM	330 PF 50WV Chip	1	
C335	ECEA1HKS010	1 MFD 50WV Electrolytic	1	
C336	YECUV1H472KX	0.0047 MFD 50WV Chip	1	
C337	ECEA1HKSR33	0.33 MFD 50WV Electrolytic	1	
C338	ECEA1CKS100	10 MFD 16WV Electrolytic	1	
C339	ECEA1HKS010	1 MFD 50WV Electrolytic	1	
C340	YECUV1H102KX	0.001 MFD 50WV Chip	1	
C341	YECUV1H103KX	0.01 MFD 50WV Chip	1	
C342	ECEA1AS470	47 MFD 10WV Electrolytic	1	
C343	ECEA1AS470	47 MFD 10WV Electrolytic	1	
C344	YECUV1E333KX	0.033 MFD 25WV Chip	1	
C345	YECUV1E333KX	0.033 MFD 25WV Chip	1	
C346	ECEA1CV102WX	1000 MFD 16WV Electrolytic	1	
C347	ECQV1H104JZ	0.1 MFD 50WV Polyester	1	
C348	ECQV1H474JZ	0.47 MFD 50WV Polyester	1	
C349	ECEA1HKS010	1 MFD 50WV Electrolytic	1	
C350	ECEA1AKS330	33 MFD 10WV Electrolytic	1	
C351	ECEA1CKS100	10 MFD 16WV Electrolytic	1	
C352	ECEA1HKS010	1 MFD 50WV Electrolytic	1	
C356	ECEA1HKS010	1 MFD 50WV Electrolytic	1	
C701	YECUV1H103ZF	0.01 MFD 50WV Chip	1	
C702	YECUV1H103ZF	0.01 MFD 50WV Chip	1	
C703	ECEA1AS470	47 MFD 10WV Electrolytic	1	
C704	YECUV1H103ZF	0.01 MFD 50WV Chip	1	
C705	ECEA1AKS330	33 MFD 10WV Electrolytic	1	
C706	ECEA1AKS470	47 MFD 10WV Electrolytic	1	
C707	YECUV1H103ZF	0.01 MFD 50WV Chip	1	
C710	ECEA1HKS010	1 MFD 50WV Electrolytic	1	
C774	YECUV1H222KX	0.0022 MFD 50WV Chip	1	CQ-984EG only
C801	YECUV1H103KX	0.01 MFD 50WV Chip	1	
C802	ECEA0JKS101	100 MFD 6WV Electrolytic	1	
C803	ECEA1CKS100	10 MFD 16WV Electrolytic	1	
C804, 805	YECUV1H220JM	22 PF 50WV Chip	2	
C806	ECEA1CKS100	10 MFD 16WV Electrolytic	1	

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
C807	ECEA1CKS100	10 MFD 16WV Electrolytic	1	
C808	ECEA1CKS100	10 MFD 16WV Electrolytic	1	
C810	ECEA1AU101	100 MFD 10WV Electrolytic	1	
C811	ECSF1VE475	4.7 MFD 35WV Tantalum	1	
C812	YECUV1H103KX	0.01 MFD 50WV Chip	1	
C813	YECUV1H103ZF	0.01 MFD 50WV Chip	1	
C814	ECEA0JKS101	100 MFD 6WV Electrolytic	1	
C815	ECEA0JKS101	100 MFD 6WV Electrolytic	1	
C820	YECUV1H681JM	680 PF 50WV Chip	1	
C821	YECUV1H103KX	0.01 MFD 50WV Chip	1	CQ-984EG only
CS701, 702	YECCL55B222M	2200 PF Feedthrough	2	

TAPE BLOCK

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
C1	YECCD1H103KX	0.01 MFD 50WV Ceramic	1	
C3	YECUV1E224ZF	0.22 MFD 25WV Chip	1	
C51 to 54	YECUV1H681JM	680 PF 50WV Chip	4	
C55, 56	YECUV1H103KX	0.01 MFD 50WV Chip	2	
C57	ECEA0JKS220	22 MFD 6WV Electrolytic	1	
C58	ECEA1CKS100	10 MFD 16WV Electrolytic	1	
C59	ECEA0JKS220	22 MFD 6WV Electrolytic	1	
C60	YECUV1E224ZF	0.22 MFD 25WV Chip	1	
C201	ECQV1H184JZ	0.18 MFD 50WV Polyester	1	
C202	ECSF1CE105	1 MFD 16WV Tantalum	1	
C203	ECQV1H273JZ	0.027 MFD 50WV Polyester	1	
C204	ECQV1H274JZ	0.27 MFD 50WV Polyester	1	
C205	ECQV1H184JZ	0.18 MFD 50WV Polyester	1	
C206	ECQV1H124JZ	0.12 MFD 50WV Polyester	1	
C207	YECUV1E683ZF	0.068 MFD 25WV Chip	1	
C208	ECEA1AK220	22 MFD 10WV Electrolytic	1	

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
C209	ECEA1AU101	100 MFD 10WV Electrolytic	1	
C215	ECEA1EK4R7	4.7 MFD 25WV Electrolytic	1	
C216	ECEA1HKR47	0.47 MFD 50WV Electrolytic	1	
C217	YECUV1H103KX	0.01 MFD 50WV Chip	1	
C218	ECEA1EK4R7	4.7 MFD 25WV Electrolytic	1	
C219	ECEA1CK100	10 MFD 16WV Electrolytic	1	
C220	YECUV1H183KX	0.018 MFD 50WV Chip	1	
C221	ECEA1EK4R7	4.7 MFD 25WV Electrolytic	1	
C222	ECEA1AK330	33 MFD 10WV Electrolytic	1	
C223	YECUV1H561JM	560 PF 50WV Chip	1	
C224	ECQB1H103JZ	0.01 MFD 50WV Polyester	1	
C225	ECQB1H153JZ	0.015 MFD 50WV Polyester	1	
C226	ECQB1H103JZ	0.01 MFD 50WV Polyester	1	
C227	ECSF1CE105	1 MFD 16WV Tantalum	1	
C228	ECQV1H124JZ	0.12 MFD 50WV Polyester	1	
C229	YECUV1E683ZF	0.068 MFD 25WV Chip	1	
C301	ECQV1H184JZ	0.18 MFD 50WV Polyester	1	
C302	ECEA1HK010	1 MFD 50WV Electrolytic	1	
C303	ECQV1H273JZ	0.027 MFD 50WV Polyester	1	
C304	ECQV1H274JZ	0.27 MFD 50WV Polyester	1	
C305	ECQV1H184JZ	0.18 MFD 50WV Polyester	1	
C306	ECQV1H124JZ	0.12 MFD 50WV Polyester	1	
C307	YECUV1E683ZF	0.068 MFD 25WV Chip	1	
C308	ECEA1AK220	22 MFD 10WV Electrolytic	1	
C318	ECEA1AK220	22 MFD 10WV Electrolytic	1	
C320	YECUV1H183KX	0.018 MFD 50WV Chip	1	
C321	ECEA1EK4R7	4.7 MFD 25WV Electrolytic	1	
C322	ECEA1EK330	3.3 MFD 25WV Electrolytic	1	
C323	YECUV1H561JM	560 PF 50WV Chip	1	
C324	ECQB1H103JZ	0.01 MFD 50WV Polyester	1	
C325	ECQB1H153JZ	0.015 MFD 50WV Polyester	1	
C326	ECQB1H103JZ	0.01 MFD 50WV Polyester	1	
C327	ECEA1HK010	1 MFD 50WV Electrolytic	1	
C328	ECQV1H124JZ	0.12 MFD 50WV Polyester	1	

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
C329	YECUV1E683ZF	0.068 MFD 25WV Chip	1	
C651	YECUV1H221JS	220 PF 50WV Chip	1	
C652	YECUV1H221JS	220 PF 50WV Chip	1	
C653	ECEA1CS152SZ	1500 MFD 16WV Electrolytic	1	
C654	ECEA0JS101	100 MFD 6WV Electrolytic	1	
C751, 752	ECQV1H104JZ	0.1 MFD 50WV Polyester	2	CQ-984EG only
C753	ECEA1HK010	1 MFD 50WV Electrolytic	1	CQ-984EG only
C754	YECUV1H822KX	0.0082 MFD 50WV Chip	1	CQ-984EG only
C755	ECQV1H104JZ	0.1 MFD 50WV Polyester	1	CQ-984EG only
C756, 757	ECEA1HK010	1 MFD 50WV Electrolytic	2	CQ-984EG only
C758	ECEA1HK2R2	2.2 MFD 50WV Electrolytic	1	CQ-984EG only
C759, 760	ECEA1AK470	47 MFD 10WV Electrolytic	2	CQ-984EG only
C761	ECEA1CK100	10 MFD 16WV Electrolytic	1	CQ-984EG only
C762	ECEA1CK100	10 MFD 16WV Electrolytic	1	CQ-984EG only
C763	ECEA0JK101	100 MFD 6WV Electrolytic	1	CQ-984EG only
C764	ECEA1HKR47	0.47 MFD 50WV Electrolytic	1	CQ-984EG only
C765	YECUV1E473KX	0.047 MFD 25WV Chip	1	CQ-984EG only
C766	ECEA1HKR33	0.33 MFD 50WV Electrolytic	1	CQ-984EG only
C767	ECEA1HK010	1 MFD 50WV Electrolytic	1	CQ-984EG only
C768	ECEA1AS101	100 MFD 10WV Electrolytic	1	CQ-984EG only
C769, 770	YECUV1H102KX	0.001 MFD 50WV Chip	1	CQ-984EG only
C771	YECUV1H222KX	0.0022 MFD 50WV Chip	1	CQ-984EG only
C772	ECEA1AK220	22 MFD 10WV Electrolytic	1	CQ-984EG only
C773	ECQV1H683JZ	0.068 MFD 50WV Polyester	1	CQ-984EG only
C775	YECUV1E473KX	0.047 MFD 25WV Chip	1	CQ-984EG only

RESISTORS

RADIO BLOCK

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
R1	ERJ8GCJ224	220k ohms 1/8W Chip	1	
R2	ERJ8GCJ104	100k ohms 1/8W Chip	1	
R3	ERJ8GCJ473	47k ohms 1/8W Chip	1	
R4	ERJ8GCJ563	56k ohms 1/8W Chip	1	
R5	ERJ8GCJ104	100k ohms 1/8W Chip	1	
R6	ERJ8GCJ102	1k ohms 1/8W Chip	1	
R7	ERJ8GCJ331	330 ohms 1/8W Chip	1	
R8	ERJ8GCJ470	47 ohms 1/8W Chip	1	
R9, 10	ERJ8GCJ104	100k ohms 1/8W Chip	2	
R11	ERJ8GCJ104	100k ohms 1/8W Chip	1	
R12	ERJ8GCJ222	2.2k ohms 1/8W Chip	1	
R13	ERJ8GCJ224	220k ohms 1/8W Chip	1	
R14	ERJ8GCJ473	47k ohms 1/8W Chip	1	
R15	ERJ8GCJ222	2.2k ohms 1/8W Chip	1	
R16	ERJ8GCJ223	22k ohms 1/8W Chip	1	
R17	ERJ8GCJ332	3.3k ohms 1/8W Chip	1	
R18	ERJ8GCJ474	470k ohms 1/8W Chip	1	
R19	ERJ8GCJ682	6.8k ohms 1/8W Chip	1	
R20	ERJ8GCJ472	4.7k ohms 1/8W Chip	1	
R21	ERJ8GCJ102	1k ohms 1/8W Chip	1	
R24, 25	ERJ8GCJ103	10k ohms 1/8W Chip	2	
R26	ERJ8GCJ224	220k ohms 1/8W Chip	1	
R27	ERJ8GCJ103	10k ohms 1/8W Chip	1	
R28	ERJ8GCJ102	1k ohms 1/8W Chip	1	
R29	ERJ8GCJ224	220k ohms 1/8W Chip	1	
R30	ERJ8GCJ101	100 ohms 1/8W Chip	1	
R31	ERJ8GCJ272	2.7k ohms 1/8W Chip	1	
R32	ERJ8GCJ183	18k ohms 1/8W Chip	1	
R33	ERJ8GCJ223	22k ohms 1/8W Chip	1	
R34	ERJ8GCJ331	330 ohms 1/8W Chip	1	
R35	ERJ8GCJ472	4.7k ohms 1/8W Chip	1	
R36	ERJ8GCJ224	220k ohms 1/8W Chip	1	
R37	ERJ8GCJ104	100k ohms 1/8W Chip	1	
R38	ERJ8GCJ101	100 ohms 1/8W Chip	1	
R39	ERJ8GCJ680	68 ohms 1/8W Chip	1	
R40	ERJ8GCJ392	3.9k ohms 1/8W Chip	1	
R41	ERJ8GCJ822	8.2k ohms 1/8W Chip	1	
R43	ERJ8GCJ104	100k ohms 1/8W Chip	1	
R45	ERJ8GCJ104	100k ohms 1/8W Chip	1	
R46	ERJ8GCJ104	100k ohms 1/8W Chip	1	
R47	ERJ8GCJ104	100k ohms 1/8W Chip	1	
R48, 49	ERJ8GCJ222	2.2k ohms 1/8W Chip	2	
R50	ERJ8GCJ102	1k ohms 1/8W Chip	1	
R51	ERJ8GCJ472	4.7k ohms 1/8W Chip	1	
R52	ERJ8GCJ151	150 ohms 1/8W Chip	1	
R53	ERJ8GCJ473	47k ohms 1/8W Chip	1	
R54	ERJ8GCJ222	2.2k ohms 1/8W Chip	1	
R55	ERJ8GCJ472	4.7k ohms 1/8W Chip	1	
R57	ERJ8GCJ183	18k ohms 1/8W Chip	1	
R58	ERJ8GCJ822	8.2k ohms 1/8W Chip	1	
R59	ERJ8GCJ103	10k ohms 1/8W Chip	1	
R62, 63	ERJ8GCJ103	10k ohms 1/8W Chip	2	
R67	ERJ8GCJ563	56k ohms 1/8W Chip	1	
R68	ERJ8GCJ473	47k ohms 1/8W Chip	1	
R69, 70	ERJ8GCJ100	10 ohms 1/8W Chip	2	
R71	ERJ8GCJ153	15k ohms 1/8W Chip	1	

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
CONTROL AND AUDIO BLOCK				
R230	ERD10TLJ152	1.5k ohms 1/8W Chip	1	
R232	ERD10TLJ153	15k ohms 1/8W Chip	1	
R233	ERDS2TJ392	3.9k ohms 1/8W Carbon	1	
R234	ERDS2TJ273	27k ohms 1/8W Carbon	1	
R235	ERD10TLJ123	12k ohms 1/8W Chip	1	
R236	ERD10TLJ223	22k ohms 1/8W Chip	1	
R237	ERD10TLJ273	27k ohms 1/8W Chip	1	
R238	ERD10TLJ821	820 ohms 1/8W Chip	1	
R239	ERD10TLJ272	2.7k ohms 1/8W Chip	1	
R240	ERD10TLJ473	47k ohms 1/8W Chip	1	
R241	ERD10TLJ224	220k ohms 1/8W Chip	1	
R242	ERD10TLJ153	15k ohms 1/8W Chip	1	
R243	ERDS2TJ102	1k ohms 1/8W Carbon	1	
R244	ERD10TLJ122	1.2k ohms 1/8W Chip	1	
R245	ERD10TLJ822	8.2k ohms 1/8W Chip	1	
R246	ERD10TLJ822	8.2k ohms 1/8W Chip	1	
R247	ERD10TLJ1R0	1 ohm 1/8W Chip	1	
R248	ERD10TLJ152	1.5k ohms 1/8W Chip	1	
R249	ERD10TLJ4R7	4.7 ohms 1/8W Chip	1	
R250	ERD10TLJ4R7	4.7 ohms 1/8W Chip	1	
R251	ERD10TLJ104	100k ohms 1/8W Chip	1	
R252	ERD10TLJ103	10k ohms 1/8W Chip	1	
R253	ERD10TLJ472	4.7k ohms 1/8W Chip	1	
R254	ERD10TLJ331	330 ohms 1/8W Chip	1	
R255	ERD10TLJ560	56 ohms 1/8W Chip	1	
R256	ERD10TLJ473	47k ohms 1/8W Chip	1	
R257	ERD10TLJ103	10k ohms 1/8W Chip	1	
R258	ERD10TLJ153	15k ohms 1/8W Chip	1	
R259	ERD10TLJ472	4.7k ohms 1/8W Chip	1	
R260	ERDS2TJ471	470 ohms 1/8W Carbon	1	
R271	ERD10TLJ102	1k ohms 1/8W Chip	1	
R272	ERDS2TJ222	2.2k ohms 1/8W Carbon	1	

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
R316	ERD10TLJ103	10k ohms 1/8W Chip	1	
R317	ERD25TJ152	1.5k ohms 1/4W Carbon	1	
R330	ERD10TLJ152	1.5k ohms 1/8W Chip	1	
R332	ERD10TLJ153	15k ohms 1/8W Chip	1	
R333	ERDS2TJ392	3.9k ohms 1/8W Carbon	1	
R334	ERD10TLJ273	27k ohms 1/8W Chip	1	
R335	ERD10TLJ123	12k ohms 1/8W Chip	1	
R336	ERD10TLJ223	22k ohms 1/8W Chip	1	
R337	ERD10TLJ273	27k ohms 1/8W Chip	1	
R338	ERD10TLJ102	1k ohms 1/8W Chip	1	
R339	ERD10TLJ272	2.7k ohms 1/8W Chip	1	
R340	ERD10TLJ473	47k ohms 1/8W Chip	1	
R341	ERD10TLJ224	22k ohms 1/8W Chip	1	
R342	ERD10TLJ153	15k ohms 1/8W Chip	1	
R343	ERD10TLJ102	1k ohms 1/8W Chip	1	
R344	ERD10TLJ122	1.2k ohms 1/8W Chip	1	
R345	ERDS2TJ822	8.2k ohms 1/8W Carbon	1	
R346	ERD10TLJ822	8.2k ohms 1/8W Chip	1	
R347	ERD10TLJ1R0	1 ohm 1/8W Chip	1	
R348	ERD10TLJ152	1.5k ohms 1/8W Chip	1	
R349	ERD10TLJ4R7	4.7 ohms 1/8W Chip	1	
R350	ERD10TLJ4R7	4.7 ohms 1/8W Chip	1	
R351	ERD10TLJ104	100k ohms 1/8W Chip	1	
R352	ERD10TLJ103	10k ohms 1/8W Chip	1	
R353	ERD10TLJ472	4.7k ohms 1/8W Chip	1	
R354	ERD10TLJ331	330 ohms 1/8W Chip	1	
R355	ERD10TLJ560	56 ohms 1/8W Chip	1	
R356	ERD10TLJ473	47k ohms 1/8W Chip	1	
R357	ERDS2TJ103	10k ohms 1/8W Carbon	1	
R358	ERD10TLJ153	15k ohms 1/8W Chip	1	
R359	ERD10TLJ472	4.7k ohms 1/8W Chip	1	
R360	ERD10TLJ103	10k ohms 1/8W Chip	1	
R365	ERD10TLJ273	27k ohms 1/8W Chip	1	
R366	ERD10TLJ103	10k ohms 1/8W Chip	1	

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
R371	ERD10TLJ102	1k ohms 1/8W Chip	1	
R372	ERD10TLJ222	2.2k ohms 1/8W Chip	1	
R701	ERDS2TJ560	56 ohms 1/8W Carbon	1	
R702	ERD25FJ5R6	5.6 ohms 1/4W Carbon	1	
R703	ERD10TLJ471	470 ohms 1/8W Chip	1	
R704	ERD25FJ1R0	1 ohm 1/4W Carbon	1	
R705	ERDS2TJ560	56 ohms 1/8W Carbon	1	
R706	ERDS2TJ103	10k ohms 1/8W Carbon	1	
R707	ERD10TLJ473	47k ohms 1/8W Chip	1	
R708	ERDS2TJ102	1k ohms 1/8W Carbon	1	
R710	ERD10TLJ473	47k ohms 1/8W Chip	1	
R711	ERD10TLJ102	1k ohms 1/8W Chip	1	
R712	ERD10TLJ473	47k ohms 1/8W Chip	1	
R713	ERD10TLJ102	1k ohms 1/8W Chip	1	
R715	ERD10TLJ473	47k ohms 1/8W Chip	1	
R716	ERD10TLJ102	1k ohms 1/8W Chip	1	
R718	ERD10TLJ102	1k ohms 1/8W Chip	1	
R719	ERDS2TJ391	390 ohms 1/8W Carbon	1	
R720	ERD10TLJ822	8.2k ohms 1/8W Chip	1	
R721	ERDS2TJ181	180 ohms 1/8W Carbon	1	
R722	ERDS2TJ103	10k ohms 1/8W Carbon	1	
R723	ERD10TLJ122	1.2k ohms 1/8W Chip	1	
R724	ERD10TLJ103	10k ohms 1/8W Chip	1	
R725	ERDS2TJ122	1.2k ohms 1/8W Carbon	1	
R726	ERD10TLJ103	10k ohms 1/8W Chip	1	
R727	ERDS2TJ222	2.2k ohms 1/8W Carbon	1	
R728	ERD10TLJ393	39k ohms 1/8W Chip	1	
R772	ERD10TLJ104	100k ohms 1/8W Chip	1	CQ-984EG only
R773	ERD10TLJ563	56k ohms 1/8W Chip	1	CQ-984EG only
R774	ERD10TLJ474	470k ohms 1/8W Chip	1	CQ-984EG only
R775	ERD10TLJ472	4.7k ohms 1/8W Chip	1	CQ-984EG only
R776, 777	ERD10TLJ224	220k ohms 1/8W Chip	2	CQ-984EG only
R778, 779	ERDS2TJ224	220k ohms 1/8W Carbon	2	CQ-984EG only
R780	ERDS2TJ103	10k ohms 1/8W Carbon	1	CQ-984EG only
R781	ERDS2TJ562	5.6k ohms 1/8W Carbon	1	CQ-984EG only
R782	ERD10TLJ562	5.6k ohms 1/8W Chip	1	CQ-984EG only
R801, 802	ERD25TJ104	100k ohms 1/4W Carbon	2	
R803	ERDS2TJ104	100k ohms 1/8W Carbon	1	
R804	ERD10TLJ103	10k ohms 1/8W Chip	1	
R805	ERDS2TJ104	100k ohms 1/8W Carbon	1	
R806	ERD10TLJ392	3.9k ohms 1/8W Chip	1	CQ-984EG only
R807	ERDS2TJ104	100k ohms 1/8W Carbon	1	
R808	ERDS2TJ104	100k ohms 1/8W Carbon	1	
R809	ERD10TLJ104	100k ohms 1/8W Chip	1	
R810	ERD10TLJ104	100k ohms 1/8W Chip	1	
R812	ERD10TLJ102	1k ohms 1/8W Chip	1	
R813	ERD10TLJ473	47k ohms 1/8W Chip	1	
R814	ERD10TLJ473	47k ohms 1/8W Chip	1	
R815	ERDS2TJ101	100 ohms 1/8W Carbon	1	
R816	ERDS1FJ331	330 ohms 1W Carbon	1	
R817	ERD10TLJ472	4.7k ohms 1/8W Chip	1	
R818	ERD10TLJ471	470 ohms 1/8W Chip	1	
R819	ERD10TLJ152	1.5k ohms 1/8W Chip	1	
R820	ERD10TLJ152	1.5k ohms 1/8W Chip	1	
R821	ERD10TLJ473	47k ohms 1/8W Chip	1	
R822	ERD10TLJ152	1.5k ohms 1/8W Chip	1	
R823	ERDS2TJ473	47k ohms 1/8W Carbon	1	
R824	ERDS2TJ472	4.7k ohms 1/8W Carbon	1	
R825	ERDS2TJ152	1.5k ohms 1/8W Carbon	1	
R826	ERD10TLJ222	2.2k ohms 1/8W Chip	1	
R827	ERD10TLJ104	100k ohms 1/8W Chip	1	
R828	ERD10TLJ123	12k ohms 1/8W Chip	1	
R829	ERD25TJ104	100k ohms 1/4W Carbon	1	
R830	ERD10TLJ473	47k ohms 1/8W Chip	1	
R835	ERDS2TJ104	100k ohms 1/8W Carbon	1	
J11	ERD10TLJ101	100 ohms 1/8W Chip	1	

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
		TAPE BLOCK		
R1 to 3	ERJ8GCJ102	1k ohms 1/8W Chip	3	
R4, 5	ERD10TLJ124	120k ohms 1/8W Chip	2	TR1, 2, 3 Rank A
R4, 5	ERD10TLJ224	220k ohms 1/8W Chip	2	TR1, 2, 3 Rank B
R7	ERJ8GCJ474	470k ohms 1/8W Chip	1	
R8	ERJ8GCJ154	150k ohms 1/8W Chip	1	
R9	ERJ8GCJ105	1M ohms 1/8W Chip	1	
R10, 11	ERJ8GCJ474	470k ohms 1/8W Chip	2	
R12	ERJ8GCJ154	150k ohms 1/8W Chip	1	
R13	ERJ8GCJ105	1M ohms 1/8W Chip	1	
R51 to 54	ERDS2TJ563	56k ohms 1/8W Carbon	4	
R55	ERDS2TJ334	330k ohms 1/8W Carbon	1	
R56	ERJ8GCJ121	120 ohms 1/8W Chip	1	
R57	ERDS2TJ123	12k ohms 1/8W Carbon	1	
R58	ERDS2TJ183	18k ohms 1/8W Carbon	1	
R59	ERJ8GCJ121	120 ohms 1/8W Chip	1	
R60	ERJ8GCJ334	330k ohms 1/8W Chip	1	
R61	ERDS2TJ183	18k ohms 1/8W Carbon	1	
R62	ERDS2TJ123	12k ohms 1/8W Carbon	1	
R201	ERDS2TJ223	22k ohms 1/8W Carbon	1	
R202	ERD10TLJ202	2k ohms 1/8W Chip	1	
R203	ERD10TLJ244	240k ohms 1/8W Chip	1	
R204	ERD10TLJ204	200k ohms 1/8W Chip	1	
R205	ERD10TLJ224	220k ohms 1/8W Chip	1	
R206	ERD10TLJ183	18k ohms 1/8W Chip	1	
R207	ERD10TLJ392	3.9k ohms 1/8W Chip	1	
R208	ERD10TLJ224	220k ohms 1/8W Chip	1	
R209	ERD10TLJ204	200k ohms 1/8W Chip	1	
R210	ERD10TLJ361	360 ohms 1/8W Chip	1	
R211	ERD10TLJ392	3.9k ohms 1/8W Chip	1	
R212	ERD10TLJ562	5.6k ohms 1/8W Chip	1	
R213	ERD10TLJ103	10k ohms 1/8W Chip	1	
R216	ERD10TLJ152	1.5k ohms 1/8W Chip	1	

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
R217	ERD10TLJ223	220k ohms 1/8W Chip	1	
R218	ERDS2TJ330	33 ohms 1/8W Carbon	1	
R219	ERD10TLJ331	330 ohms 1/8W Chip	1	
R221	ERD10TLJ153	15k ohms 1/8W Chip	1	
R222	ERD10TLJ332	3.3k ohms 1/8W Chip	1	
R223	ERD10TLJ511	510 ohms 1/8W Chip	1	
R224	ERD10TLJ474	470k ohms 1/8W Chip	1	
R225	ERD10TLJ432	4.3k ohms 1/8W Chip	1	
R226	ERD10TLJ913	91k ohms 1/8W Chip	1	
R227	ERD10TLJ202	2k ohms 1/8W Chip	1	
R228	ERD10TLJ512	5.1k ohms 1/8W Chip	1	
R229	ERD10TLJ473	47k ohms 1/8W Chip	1	
R301	ERD10TLJ223	22k ohms 1/8W Chip	1	
R302	ERD10TLJ202	2k ohms 1/8W Chip	1	
R303	ERD10TLJ244	240k ohms 1/8W Chip	1	
R304	ERD10TLJ204	200k ohms 1/8W Chip	1	
R305	ERD10TLJ224	220k ohms 1/8W Chip	1	
R306	ERD10TLJ183	18k ohms 1/8W Chip	1	
R307	ERD10TLJ392	3.9k ohms 1/8W Chip	1	
R308	ERD10TLJ224	220k ohms 1/8W Chip	1	
R309	ERD10TLJ204	200k ohms 1/8W Chip	1	
R310	ERD10TLJ361	360 ohms 1/8W Chip	1	
R311	ERD10TLJ392	3.9k ohms 1/8W Chip	1	
R312	ERD10TLJ562	5.6k ohms 1/8W Chip	1	
R313	ERD10TLJ103	10k ohms 1/8W Chip	1	
R316	ERD10TLJ333	33k ohms 1/8W Chip	1	
R317	ERD10TLJ221	220 ohms 1/8W Chip	1	
R318	ERDS2TJ103	10k ohms 1/8W Carbon	1	
R319	ERD10TLJ103	10k ohms 1/8W Chip	1	
R321	ERD10TLJ153	15k ohms 1/8W Chip	1	
R322	ERD10TLJ332	3.3k ohms 1/8W Chip	1	
R323	ERD10TLJ511	510 ohms 1/8W Chip	1	
R324	ERD10TLJ474	470k ohms 1/8W Chip	1	
R325	ERD10TLJ432	4.3k ohms 1/8W Chip	1	

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
R326	ERD10TLJ913	91k ohms 1/8W Chip	1	
R327	ERD10TLJ202	2k ohms 1/8W Chip	1	
R329	ERD10TLJ473	47k ohms 1/8W Chip	1	
R651	ERD10TLJ562	5.6k ohms 1/8W Chip	1	
R653	ERD10TLJ562	5.6k ohms 1/8W Chip	1	
R654	ERD10TLJ473	47k ohms 1/8W Chip	1	
R656	ERD10TLJ105	1M ohms 1/8W Chip	1	
R657	ERD10TLJ473	47k ohms 1/8W Chip	1	
R658	ERD10TLJ473	47k ohms 1/8W Chip	1	
R659	ERD10TLJ562	5.6k ohms 1/8W Chip	1	
R660	ERD10TLJ562	5.6k ohms 1/8W Chip	1	
R661	ERD10TLJ103	10k ohms 1/8W Chip	1	
R662	ERD10TLJ103	10k ohms 1/8W Chip	1	
R663	ERD10TLJ103	10k ohms 1/8W Chip	1	
R664	ERD10TLJ103	10k ohms 1/8W Chip	1	
R665	ERD10TLJ391	390 ohms 1/8W Chip	1	
R666	ERX1SJ1R5	1.5 ohms 1W Metal Film	1	
R668	ERD10TLJ103	10k ohms 1/8W Chip	1	
R751	ERDS2TJ222	2.2k ohms 1/8W Carbon	1	CQ-984EG only
R752	ERD10TLJ823	82k ohms 1/8W Chip	1	CQ-984EG only
R753	ERD10TLJ124	120k ohms 1/8W Chip	1	CQ-984EG only
R754	ERD10TLJ221	220 ohms 1/8W Chip	1	CQ-984EG only
R755	ERDS2TJ154	150k ohms 1/8W Carbon	1	CQ-984EG only
R756	ERDS2TJ563	56k ohms 1/8W Carbon	1	CQ-984EG only
R757	ERDS2TJ682	6.8k ohms 1/8W Carbon	1	CQ-984EG only
R758	ERD10TLJ104	100k ohms 1/8W Chip	1	CQ-984EG only
R759	ERD10TLJ123	12k ohms 1/8W Chip	1	CQ-984EG only
R760	ERD10TLJ823	82k ohms 1/8W Chip	1	CQ-984EG only
R761	ERD10TLJ104	100k ohms 1/8W Chip	1	CQ-984EG only
R762	ERDS2TJ394	390k ohms 1/8W Carbon	1	CQ-984EG only
R763	ERD10TLJ332	3.3k ohms 1/8W Chip	1	CQ-984EG only
R764	ERDS2TJ332	3.3k ohms 1/8W Carbon	1	CQ-984EG only
R765	ERDS2TJ560	56 ohms 1/8W Carbon	1	CQ-984EG only
R766	ERD10TLJ151	150 ohms 1/8W Chip	1	CQ-984EG only

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
R767	ERDS2TJ222	2.2k ohms 1/8W Carbon	1	CQ-984EG only
R768	ERD10TLJ473	47k ohms 1/8W Chip	1	CQ-984EG only
R769	ERD10TLJ563	56k ohms 1/8W Chip	1	CQ-984EG only
R770	ERD10TLJ473	47k ohms 1/8W Chip	1	CQ-984EG only
R772	ERD10TLJ332	3.3k ohms 1/8W Chip	1	CQ-984EG only
J12	ERD10TLJ512	5.1k ohms 1/8W Chip	1	

INDICATOR BLOCK

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
R50	ERDS2TJ180	180 ohms 1/8W Carbon	1	

VARIABLE RESISTORS

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
VR2, 3	EVNC3AA00B14	10k ohms Semi-fixed	2	
VR4	EVND3AA00B23	2k ohms Semi-fixed	1	
VR7	EVNC3AA00B14	10k ohms Semi-fixed	1	
VR8	EVNC3AA00B15	100k ohms Semi-fixed	1	
VR201, 301	EVNB1AA00B54	50k ohms Semi-fixed	2	
VR231, 331	YEVK12EG001	100k ohms Volume Control	1	
232, 332		50k ohms Fader Control		
235		50k ohms Balance Control		
w/SW701, 801		Power Switch, Seek Switch		
VR233, 333	YEVA102A001	100k ohms Bass Control	1	
234, 334		100k ohms Treble Control		
VR801	EVND4AA00B15	100k ohms Semi-fixed	1	

LCD

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
	YEXDCM772	LCD Ass'y	1	

SWITCHES

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
SW12	EVQQL307M	Loudness Switch	1	
SW1 to 11, 13	YEAS09199	Preset, MU/FF, MD/REW, LW (BAND) MW (BK)	14	The ( ) showes CQ-984EG.
14, 15		FM (DK), LOC/TPS, MONO/PRG, STOP/EJ		

VARIABLE CAPACITORS

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
C18	YECTZB4N100B	10 PF Trimmer	1	
C62	YECTZB4Z060B	6 PF Trimmer	1	
C78, 85, 88	YECTZ3R200FR	20 PF Trimmer	3	
C95	YECTZ3R900FR	90 PF Trimmer	1	
C99	YECTZB4N100B	10 PF Trimmer	1	

COILS, TRANSFORMERS AND CERAMIC FILTERS

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
L1	YELQ07S046	MW/RF Coil	1	
L2	YELA07S081	LW ANT Coil	1	
L3	YELA07S118	MW/ANT Coil	1	
L4	YELT05N101KT	Choke Coil	1	
L5	YELT07S077	MW RF Coil	1	
L6	YELT07S081	LW RF Coil	1	
L7	YELL07S128	MW OSC Coil	1	
L8	YELL07S152	LW OSC Coil	1	
L9	YELT05N101KT	MW RF Coil	1	
L220, 320	YELM13D941		2	
L701	YETQ026F048A	Choke Coil	1	
IFT1	YEIF07S7080	FM IFT	1	
IFT2	YEIF07S7083A	FM IFT	1	
IFT3	YEIA07S7124	MW IFT	1	
CF1, 2	YEIN09N5016	FM Ceramic Filter	2	
CF3	YEIN09N5049	FM Ceramic Filter	1	
CF4	YEIN08N5032	MW Ceramic Filter	1	
CF5	YEIN05N5048A	MW Ceramic Filter	1	
CF801	YEIN05N5048A	Ceramic Filter	1	
J2	YELA02A120	FM ANT Coil	1	

CRYSTALS

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
X651	YEXLCSB400P	Crystal 400 kHzz	1	
X751	YEXLSB456F13	Crystal 456 kHz	1	CQ-984EG only
X801	YEXL49N04500	Crystal, 4.5 MHz	1	

INSTALLATION PARTS

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
A101	YEFG04010A	Rear Support Strap	1	
A102	YEFX999440	Dismounting Bracket (U-shaped)	2	
A103	YEFS01174	Rubber Cushion	1	
A104	XVG5C25FXS	Hex. Bolt 5mmø x 25mm	1	
A105	XWA5BFX	Spring Washer 5mmø	2	
A106	XWG5FX	Plain Washer 5mmø	2	
A107	XNG5AFXS	Hex. Nut 5mmø	2	
A108	XWC5CFX	Toothed Lock Washer 5mmø	1	
A109	YEFX0211710	Mounting Case	1	

PRINTINGS

Ref. No.	Part No.	Part Name & Description	Pcs Set	Remarks
A110	YEFM28877	Instruction Book (English)	1	CQ-983EE
A111	YEFM28876	Instruction Book (English, German, French)	1	CQ-984EG
A112	YEFM99188A	VF Map	1	CQ-984EG only
A113	YEFM28875	Instruction Book (English, French, Dutch, Swedish)	1	CQ-983EG